

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL
RAILROAD AND FINANCIAL NEWSPAPER.

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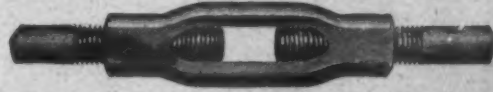
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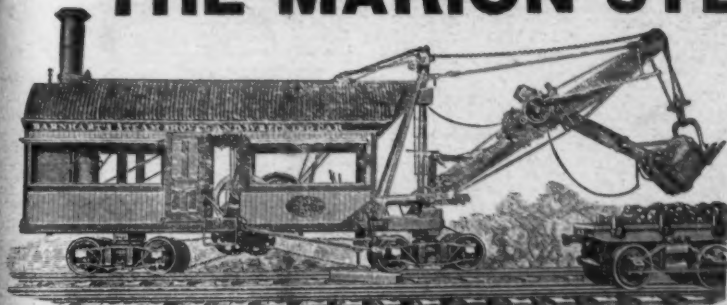
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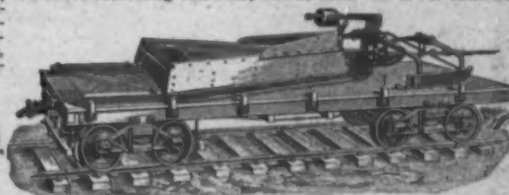


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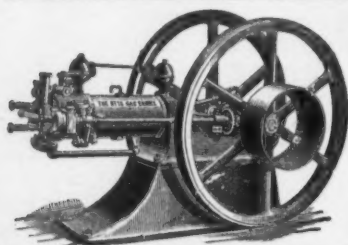
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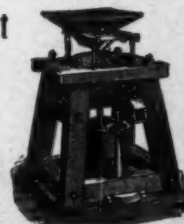
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MANUFACTURERS' RECORD

A Southern Industrial, Railroad and Financial Newspaper.

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WEEKLY. }

BALTIMORE, AUGUST 8, 1891.

\$4.00 A YEAR.
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Manufacturers' Record

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BALTIMORE, AUGUST 8, 1891.

THE coal trade at any large shipping port requires extensive docks and track-yards for its economic handling. An instance of this may be found at the British city of Cardiff, whose Chamber of Commerce has urged the corporation of that borough to take immediate action to provide additional dock accommodation at the port. To do this it will be necessary to bring together the different dock interests of that city. At a meeting held to consider this request it was stated that within ten years the coal export trade of Cardiff had increased more than 50 per cent., with a probability of an annual gain of from half to three-quarters of a million tons. At present there is such a congested condition of the docks that there is not a single lumber-yard alongside deep water, and yet last year Cardiff imported 590,000 tons of timber. Southern ports like Mobile, Galveston, Pensacola and all others ambitious to become great coaling stations should make early and adequate provision of dock room, as otherwise they will be unable to meet the demands of a traffic that will grow in a ratio corresponding to the development of the extensive coal measures of the interior. In this respect the Norfolk & Western and the Chesapeake & Ohio Railroad managers have shown their wisdom by setting apart on their respective water-fronts at Lambert's Point and Newport News very large areas to be used for this traffic.

Nothing "Ails the South."

Is there a conspiracy in New York against the South—"a conspiracy to delay the industrial development of that section, and, whenever possible, to prevent the investment of money there in any enterprise?" Such a charge is made by the New York correspondent of the Atlanta Constitution, who also says:

The conspiracy is said to have been originated by the promoters of large land and investment schemes in the West. Of course, the resources of the South are now too well known for that section to suffer very much from such a conspiracy, but at the same time it would be possible to prevent the investment of large sums of money there.

Conspiracy is too strong a word. We do not believe there is a combination for such a purpose in New York or elsewhere. It is unquestionably true, though, that the Northwestern papers and Northwestern interests in the East are making the most strenuous efforts to divert the Southward flow of capital that for the last few years has gone on in constantly increasing volume. The interests that suffer by reason of the superior advantages possessed by the South for the investment of money seek their own advancement by decrying the South. The collapse of an occasional speculative scheme that had never any foundation but the florid prospectus issued by its promoters is eagerly taken up and magnified into a proof that Southern development has received a serious blow. These things, however, have but little effect upon the public mind.

There is nothing peculiar in the condition of the South to day. It has as many new enterprises under way in proportion to its population, and more in proportion to its available capital, than any other section of the Union. While it has to endure its share of the stagnation caused by the financial troubles in Europe and the uncertainties which they create in the minds of conservative financiers in this country, it is pursuing the even tenor of its way with the calm, because well-founded,

conviction that it is safe from any serious disasters, and that it will participate in the general revival of business that all expect to come when the midsummer dullness is over.

Its people can read with entire complacency in the Wall Street News that Southern interests are liquidating—"that is what ails the South at present." They can bear to be told that—

the progress of that section in material development has been marvelous, but it has been overdone. Inflated values have been put upon real estate. The newly established coal and iron industries have long ago reached the point of overproduction. There is no longer a strong inducement for the investment of foreign or Northern capital in the South, and the liquidation has set in. It will be severe, but it will be healthy, because in the end values of Southern properties will be put upon a normal basis.

They can feel sorry for a financial journal that gravely makes such assertions, knowing that there has been no time since the South's regeneration began when more foreign and Northern capitalists were examining and negotiating for Southern properties than the present. They can laugh at the prediction that "the railroads of the South will be sufferers from the process," that "they have been benefited by the progress of the 'boom,' and are going to feel the effect of the contraction severely," for they know that the freights the South is daily preparing for them will tax to the utmost their carrying capacity; and, finally, they can appreciate the animus of the closing sentence, for which all preceding it was preparatory: "It is a good time to let Southern stocks alone."

The Northwest has reasons of its own for publishing such paragraphs as the following, clipped from the St. Paul Pioneer Press:

Another thing which favors the return of capital to the Northwest is the collapse of many of the industrial enterprises and speculative bubbles of the South. Hundreds of thousands of dollars have been sunk by Eastern capitalists in investments in that region. The grand rush of capital during the "boom" period necessarily

caused the formation of hundreds of speculative schemes, which have fallen to pieces in the reaction, with the necessary result of deterring capital from embarking in really meritorious investments.

Of "the return of capital to the Northwest" there is no reason to doubt, but it will not be due to any such reasons as those stated. At no time during what the Press terms the "boom period" has the number of merely speculative enterprises in the South begun to compare with those which for fifty years or more have attended every period of Western progress. Every man familiar with the history of that splendid progress knows that wherever there was solid advancement the speculator accompanied it, and on the strength of it concocted his schemes to deceive unwary investors. Yet the West, in spite of its myriad of bursted bubbles, has moved forward steadily. That history will be grandly repeated in the South, which has within its borders natural resources so many and varied and on such a scale of magnitude that no other part of the land can equal them. These are the substantial attractions to capitalists, American and foreign, that are destined to build up the South with a rapidity that was never surpassed in the palmiest period of Western progress.

COTTONWOOD, which grows abundantly on the banks of many Southern streams, is coming into use for box-making. It is a very tough wood, as shown by a remarkable test made at Memphis. A concern there made to order for a California express company a dozen boxes for conveying treasure across the continent. These were packed solidly and then dropped from a height. Boxes of other woods were destroyed, but those of cottonwood were but slightly injured by twisting, but otherwise were not damaged.

HAVE you real estate notes, municipal or county bonds that you want to convert into cash? If it is a Southern note or bond you can advertise it free, four times, in the MANUFACTURERS' RECORD.

The Future of Cotton.

The future of cotton is under discussion in most of the Southern States. The large surplus left over from the crop of 1890 and the prospect of a production nearly as great this season has brought strict low middling down to seven cents, the price at which the first new bale from Georgia was sold a few days ago in New York. At this figure the farmer cannot recover his expenses. So much of his year's work as was given to that crop was thrown away, while at least a-third of the money paid for seed, fertilizers, labor, ginning and baling was lost.

A New Orleans dispatch to the Boston Advertiser says:

A movement to replace cotton in some part with ramie is broached in this State, and this project may be carried out here, especially as there is now a demand for it on the part of New England manufacturers which did not exist two years ago. Large quantities are being imported from China there, and as the cotton States are well adapted to its growth, it would seem the part of wisdom for them to devote a portion of their cotton acreage to its cultivation, especially as it has been shown to be at least a fairly profitable product. The low price of cotton furnishes proof of this. Cotton-growers as a class are not prosperous, because the business is overdone. The 8,000,000-bale crops bring actually less money than the 4,000,000-bale crops did, although the cost of each item of production is almost substantially the same.

The oldest farmers who have taken deepest root in the cotton fields barely hold their own. Annually hosts of new farmers, farmers of a single season, farmers without experience or sufficient financial equipment, raid the cotton lands. The wreck of their slender means is gathered in at harvest time by their factors, and naturally in their own ruin they are oblivious to the injury their misdirected competition has inflicted on others and the public generally.

If only a moderate percentage of those who ruin themselves at cotton-planting could have their energies directed into other channels they would be spared much misery themselves, and such a weight would be lifted from cotton-planting that much, if not most, of the \$300,000,000 which this crop brings yearly into the cotton States would remain here to build up dilapidated farmsteads and to promote industries of many kinds. Those learned in such matters say that a 5 per cent. reduction of the crop would increase its market value 25 per cent.

While it would be wise to reduce the area of cotton production until the world's consumption shall require more than it does at present, the only way in which that can be accomplished is by the voluntary action of the farmers, or else by the refusal of factors and commission merchants to make advances to them. The first it is useless to expect until there is a great change in human nature. A gentleman travelling in one of the upland cotton districts some years since, when the price of the staple had been for several seasons less than the cost of production, asked a group of farmers why, if for successive years they had lost money in making cotton, they did not cultivate other crops to the reduction or neglect of this. One of them replied

that such a plan had been discussed in his grange, and every member agreed to adopt it, but that when it came planting time every one of them thought he would be smart and put in as much as ever, a fact they mutually discovered and laughed over later on. A like result would probably follow any agreement made within or without the Farmers' Alliance.

It is practicable, however, for bankers, factors and commission merchants in every State to combine in an agreement to make advances only to planters who own unencumbered farms. This would cut off at least three-fourths of the small growers, and compel them to find some other employment. At the present day a large per cent. of the cotton growers who are "carried" through a season are renters, not owners, of land. Their crop is often mortgaged before the ground is broken. If the season is favorable and prices fair they will be able to pay their debts, with nothing left over for the next year. Practically they and their families work a whole year for shelter, food and clothing, nothing more. Force all such farmers into gainful work by refusing to carry them any longer, and the cotton crop would be kept within the demands of the market.

British Cotton Workers.

The Royal Commission of Labor in Great Britain is divided into sections, each of which is charged with certain lines of investigation, the whole covering all the industries of the kingdom. Section C, representing the textile, clothing and several other trades, held a meeting lately at Westminster to listen to witnesses representing the cotton mills of Lancashire, Cheshire, Derbyshire and Yorkshire. In these four counties there are 425,500 looms and 199,764 persons employed. Of these 25,969 are "half-timers," that is, children between 11 and 14 years of age, who work only one-half the hours required from adults. Their wages range from two shillings six pence to three shillings a week, which at the best is about 70 cents of our currency. Among the many witnesses examined was Mr. Albert Simpson, of Preston, a cotton spinner, cotton manufacturer and an East India merchant. This witness said:

During the last 35 years the wages of cotton operatives had increased from 25 to 50 per cent., and at the same time a fall in the price of commodities had taken place. He thought at present the work-people got more than their fair share of the profits. During the past 10 years the average profits in the cotton trade over the whole of Lancashire would not average more than 5 per cent. Some day there would be a bursting of the bubble, and in the meantime those who knew what they were about were getting out of the cotton trade. India and America were going rapidly ahead and putting down new mills and machinery, which we ought to be doing.

This was a confession that the cotton manufacturers of the United States and India were making a progress that threatened seriously

the future prosperity of that great textile district. Another witness expressed the same thought by objecting to a reduction of the present hours of labor, "in view of the severe competition from abroad." A third witness, questioned as to the object of sizing cotton goods, said: "The practice of heavy sizing is to defraud the purchaser. If there were no adulteration by sizing steaming would not be necessary, and the health of the people would be secured." Another, testifying on the same subject, spoke more particularly with regard to "the sanitation of weaving sheds," in some of which "the temperature was as high as 90 degrees and there was no ventilation." These side lights upon the cotton manufacturing industry of Great Britain reveal anything but a hopeful outlook for it. Cotton spun and woven near the fields in which it grew will eventually make it impossible for the manufacture elsewhere of any but the finest staples.

THE announcement is made by the Washington Post that a company has been formed in Liberia, Africa, to encourage an exodus of Southern negroes to that distant land, and that its representatives are now in that city. President Cheeseman, of Liberia, is at the head of the Liberian Emigration Co. His representative here is Benjamin Gaston, a full-blooded negro of middle age, who was born a slave at Columbus, Ga. He emigrated to Liberia in 1867, where he became a prosperous planter. He has made frequent trips to this country, but his present visit is in the interest of the Liberian Co. Since arriving in Washington he has been in consultation with Capt. John Murray and Mr. W. B. Lewis, who represent Elder, Dempster & Co., of Liverpool, owners of an extensive steamship line. It has been arranged that this firm shall furnish ships to leave Southern ports at frequent intervals, carrying immigrants to Liberia, and it is thought the first ship will start within two months. Mr. Gaston has been travelling in the South, has addressed several large audiences of negroes, and claims to have the signatures of 2,000,000 people who are ready and anxious to make their homes in the land of their forefathers. It is said that the legislature of Liberia is in full sympathy with this enterprise, and has adopted a liberal policy to encourage a wholesale exodus from the United States.

THE importance of an ample supply of pure water for the use of man and beast is beyond estimate. Elsewhere in this issue may be found an elaborate communication from that versatile, thoughtful and accomplished writer, Mr. James R. Randall, in which several important propositions are made, and facts given in support of them, that merit careful consideration.

Subscribe to the MANUFACTURERS' RECORD.

Southern Coal Production.

A bulletin from the census office gives the following statistics of coal production in the six States of West Virginia, Kentucky, Tennessee, Virginia, Georgia and North Carolina.

The aggregate production of coal in those States, according to the tenth census, was 3,469,336 short tons, valued at \$4,110,162. For 1889 the figures for the same States were 11,649,266 short tons, valued at \$10,943,089. This was an increase of 8,179,930 short tons, and in value of \$6,832,927. The following table gives the comparative statements by States for the two censuses:

States.	Eleventh Census.		Tenth Census.	
	Product, short tons.	Value.	Product, short tons.	Value.
W. Virginia	6,231,880	\$5,086,584	1,829,844	\$2,013,671
Kentucky	2,399,735	2,374,339	946,288	1,134,950
Tennessee	1,925,589	2,378,390	495,131	629,774
Virginia	865,786	804,475	43,979	99,802
Georgia and N. Carolina	226,156	339,382	154,994	232,005

In West Virginia the total capital invested in coal production during the census year was \$10,508,050; the total number of employes was 9,952, and the total wage payments \$3,888,712, and the total expenditures of all kinds, \$4,841,796.

In Kentucky the total capital invested was \$6,581,380; the total number of employes, 5,260; the total wage payments, \$1,756,363, and the total expenditures, \$2,156,548.

In Tennessee the total capital invested was \$4,362,711; the total number of employes, 4,108; the total wage payments, \$1,609,310, and the total expenditures, \$2,113,292.

In Virginia the total capital invested was \$1,055,516; the total number of employes, 1,555; the total wage payments, \$621,266, and the total expenditures, \$682,408.

DURING the fiscal year of 1890 there were exported from this country to Brazil, Cuba, Porto Rico and San Domingo goods of an aggregate value of \$27,746,356. During the same year we imported goods from them amounting to \$119,124,986. The balance of trade against us that this country paid in gold or its equivalent was \$91,378,630. Here is a large cash margin that the reciprocity treaties recently concluded will enable us to remove by substituting for it the products of our farms, mills and factories. It is reasonable to expect that under the beneficent operation of these treaties we shall do even better than this, for those countries have been for years heavy purchasers of British, German and French goods, a large proportion of which this country can now supply at a considerable advantage over our foreign competitors. In the several schedules contained in the treaty with Spain we find numerous articles that the South produces and can supply, such as flour, grain and all articles made from them, fish and shell fish of all kinds in whatever form preserved, cottonseed oil and meal, rosin, tar, pitch and turpentine, coal, cast and wrought iron, woods in the rough and manufactured, furniture of wood or metal, spun or twisted cot-

ton and cotton fabrics of all descriptions, besides a lengthy list of other articles. Some of these will be admitted free of duty, some at a discount of 50 per cent. from the rates other nations are taxed, and still others at a discount of 25 per cent. As Havana and the several ports of the Spanish Antilles are within short steaming distance of Baltimore, Norfolk and other Southern commercial cities, there is every encouragement for their merchants to organize immediately for entering into and securing a good share of this business, which will require a considerable fleet of steamers for its transaction, will pay handsome profits to those engaged in it, and, because of the heavy purchases that must be made of this country's products for outgoing cargoes, will bring the interior of the States into closer relations with their seaboard cities to their mutual benefit.

The Wonderful Development of the Basic Process.

BY JACOB REESE.

The Bessemer process was made public in 1856, and in the twelve years following less than 1,000,000 tons of steel was made in the world by that process; and in the twelfth year, 1868, the entire production of Bessemer steel was only 308,020 tons.

The basic process was made public in 1878, and in the following twelve years the aggregate product in the world was 13,201,277 tons, with an output of more than 4,000,000 tons of odorless phosphate, while in the twelfth year, 1890, there was produced 2,613,083 tons of basic steel.

This is not only the most wonderful process, but it has shown the most wonderful development ever made by any process in the metallurgy of iron or steel. Its steady and rapid growth is shown in the following table:

	Basic steel produced, tons.
1878.....	20
1879.....	1,200
1880.....	50,000
1881.....	300,000
1882.....	450,000
1883.....	634,373
1884.....	864,000
1885.....	945,317
1886.....	1,375,017
1887.....	1,704,481
1888.....	2,953,234
1889.....	2,274,532
1890.....	2,613,083
Total basic for 12 years.....	13,201,277
Total Bessemer for 12 years.....	1,000,000
Basic steel made 12th year.....	2,613,083
Bessemer steel made 12th year.....	308,020

Notwithstanding all the efforts that have been made to discredit the basic process and to boom the acid-Bessemer process, the figures here given show that the intrinsic merit of the basic process has given it such a wonderful development as was never otherwise known in the metallurgy of iron or steel, and I predict that the production of basic steel in 1900 will exceed 5,000,000 tons.

I have repeatedly advised the South to take hold of the basic process with confidence, and that it would do more for her prosperity than anything else in the industrial line; and I write this paper to show that while the South is sleeping others are reaping the rich harvest, and are not only making the cheapest and best steel, but are making the purest and cheapest plant food from it as a bi-product by the use of the basic process.

You will pardon me for the pride I take in speaking of the merits of the basic process and its comparison with the Bessemer process, as I have spent a fortune in the development and litigation on the right to the basic process; and while I have been adjudged to be the prior inventor, others, unfortunately, get the profits, and nothing is left to me but to look and admire. And while some strive to rob me of the honor, I smile and shake hands with myself.

PURE WATER AGAIN.

Many Forms of Sickness the Result of Bad Water.

Noted Abolition of Fevers Transformed Into Health Resorts by the Introduction of Pure Water.

BALTIMORE, MD., July 3, 1891.

Editor Manufacturers' Record:

I have been from time to time very much gratified at your opportune suggestions about the necessity of a pure water supply, and avail myself of the kind invitation to furnish some views on a subject which nearly concerns the people of all sections of this country.

Experience and observation compel me to start out with what may seem an audacious declaration, that most of the preventable or zymotic disease of the world is ascribable not to what is popularly called "malaria," but malaqua—impure water. If many of the doctors would rid their minds of the malaria superstition and pay more intelligent attention to the pollution of water as the dominant cause of disease, health would become the rule and not the exception. We should also trample upon Col. Robert Ingersoll's avowment that if he had been the Almighty, this is one of the changes he would make in human conditions. The fact is, God has constituted man exactly in that way, but man has brought calamity upon himself by ignorance, indifference and neglect. In every place on earth man can drink pure or hurtless water if so minded, for the most contaminated fluid may be rendered at least harmless by boiling and filtering. The Chinese, who are often derided, are far in advance of us in this particular, and have been for thousands of years. Millions of them, living on or near great rivers which they know to be vast sewers, drink of them with impunity, because the raw material is boiled for their tea, which, by the way, they consume without milk and sugar. A high degree of heat acts as a germicide. Surgeons, well aware of this, plunge their instruments into boiling water, so that after operations upon certain patients all danger of blood-poisoning subsequently is obviated. Some years ago I had occasion to consult the vital statistics of San Francisco, and my remembrance is that the healthiest part of that city was the Chinese quarter, where nearly every hygienic law is presumably violated. It occurred to me that perhaps the Chinese owed their comparative exemption from disease to the fact that they did not drink water in its crude state, but as boiled tea.

When we consider that so large a percentage of our bodies is fluid, and that, when cremated, a man weighs, in ashes, only about ten pounds, it is of the last importance that water, which forms so large an element of our physical existence, should enter the system in the purest possible condition. The mere statement of this proposition is enough, without dwelling upon the effects upon the complex anatomy of brain, nerves, digestion and the like. But how many men consider this or attend to it scrupulously for their own benefit? How many municipal authorities guard vigilantly the public health in this essential? The city of Baltimore is highly favored relatively in its water supply, but a perfectly pure beverage is not accorded, and, but for the incessant vigilance of Dr. C. W. Chancellor, there would be contamination of a dangerous kind, just as periodically happened at Cumberland and other places, where typhoid fever prevails. A certain city in the South has long boasted of the purity of its river water, but this, I think, is a fetish handed down from a past age. The water used is not only muddy to a greater or less degree, but it comes for hundreds of miles, streaming from pig

pens, horse lots, guano fields, and tainted with animal and vegetable decomposition. I know how it is asserted that purification takes place in the mighty mass of flowing liquid, but this is, at best, problematical, and the Chinese never trusted it. I also know that up to a recent period it was declared that ice purified water, and now no well-informed man asserts seriously any such thing. The reverse is true, and, right here, I may express the conviction that much of the natural ice contains active forms of disease, especially that which is cut from rivers receiving sewage pollution and ponds that contain surface filth. It would be a wise precaution, in summer, to cool water known to be wholesome by ice that comes in contact from the outside only. People who drink melted ice do so at their peril. There is no question in my mind that a vast amount of sickness and death can be traced to sewage rivers and the ice harvested from them, not to speak of the folly of pouring into the stomach, especially at meals, copious draughts of frigid water, which paralyze the functions of the stomach and help put out what may be called the fires so requisite for digestion.

The reasons leading me to place very little faith in the malaria of swamps, for example, as a breeder of disease are these: The air of a swamp is not stagnant, but vagrant. It is constantly changed by storms. But even if we suppose this air to be poisonous, I hold that pure water is presumably the antidote. I really believe that it is the swamp or surface water that produces fevers, chills, stomach troubles, etc. I have known families living in swamps who boiled the water or procured an artesian supply, and their health henceforth was phenomenal. Take the case of Southwest Georgia and portions of South Carolina and Florida. In Southwest Georgia, not long ago, the whole region was a pest-hole, scourged with typhoid, hemorrhagic fever, a species of cholera, ague and other similar diseases. At that period the water supply was chiefly from surface wells. Since artesian fountains have been unsealed this region has become a renowned sanitarium of Georgia, and its material development wonderfully advanced. In one of the villages of South Carolina, long regarded as a death-trap, artesian water has beneficially metamorphosed the whole population, and yet swamps are on all sides of the settlement. In Southwest Georgia and Florida more particularly, these artesian geysers spout to the height of 45 feet. About one year ago I happened to dwell in a manufacturing village which was notoriously afflicted with so-called "malarial" complaints. The fine mill there was sometimes either closed or crippled by sickness of the operatives. The death rate was very high, and the population naturally discouraged. The authorities of the mill ascribed this wretched state of affairs to neighboring ponds, swamps and so forth. I traced it to the surface well water, and, incidentally, became aware of the fact that a natural artesian vent existed in the vicinity known as a boiling spring. After many months I persuaded the president of the corporation, an enlightened young man, to have the different waters analyzed. He did so, and found that the water commonly used by the people was unfit for consumption, and that the water of the boiling spring was "the purest ever analyzed." He thereupon furnished the pure stream to his operatives, and the change for the better was instant. The other day I was told that the only doctor left in the place was preparing to move because he could no longer support his family.

I am satisfied collaterally that animals suffer relatively as man does from bad water, and that proportionate care should be taken of their health. Much of the disease of beasts is propagated by thus drinking at the same trough. In this

respect public places for quenching the thirst of animals, unless speedily renewing their supply, are pernicious. A friend told me that Gen. Wade Hampton, impressed with these facts, saved the lives of his mules in the Mississippi valley by requiring that they should drink only pure water. His neighbors knew of this and perceived its benefit, but did not, it is said, take the trouble for their own profit to imitate his example. Many householders say it is "too much trouble to boil the water," although suspecting its danger. These people apparently think that sickness, doctors' bills, death and funeral expenses are not troublesome.

Your advice for securing cistern or rain water, when other sources are debatable, is quite correct, but great care must be taken in this matter. The roof must be clean as well as the gutters, and it clean. A slate roof is the best. The reservoir must be sedulously watched, and it should be reasonably remote from privy vaults. I think, with all this vigilance, it would be prudent to use a filter. Attention to this precaution is necessary. An imperfect filter is, as Dr. John Morris shows, a nidus of disease. The Pasteur filter is, perhaps, the best, though expensive. I have been somewhat disappointed in implements of this character that promised to reach something like perfection.

Now, let me enter what may be called a process of evolution, which may or may not be accredited by the scientific world, and yet is worth investigating. My attention was called to leprosy, and I studied everything on that line available. Suddenly it occurred to me that if pure water banished the so-called malarial disease of Southwest Georgia—and, in my opinion, they were caused by bad water and not bad air—why should not the germ of leprosy be found in contaminated fountains? This supposition was enforced by remembrance that, when in Rio de Janeiro, I was informed that *elephantiasis*—a species of leprosy—had been traced to polluted or tainted water. This hypothesis was emphasized afterward when stating my views to Dr. Joseph Jones, the celebrated expert, of New Orleans, who had investigated the leper colony of Louisiana, and who at one time was physician in charge of the leper ward of the Charity Hospital of that city. I was also confirmed in my opinion by Dr. H. H. Steiner, of Augusta, Ga., a very prominent medical practitioner. He told me that I had stumbled on a great truth which had long escaped his recollection. He said that during or just after the Mexican war, when a young surgeon in the United States army, he had visited the leper hospital near the City of Mexico and learned there that the disease was tracked to the waters of a lake which were poisoned by some peculiar plant. I wrote out briefly my opinions to Cardinal Gibbons, and urged him to convey them to the successor of Father Damien, in the Sandwich Islands, and advise him and the Sisters of Mercy to boil all the water they drank, as the probability was it had a taint provocative of leprosy.

In this connection I am satisfied that much of the disease engendered in African exploration comes from impure water. At certain seasons of the year the fountains of that dark continent are resorted to by wild animals as well as man. It was at such fountains that the noted hunter, Rouleyn Gordon Cumming, stationed himself to kill lions, elephants and other large game. It is evident that such water sources must have been fecally contaminated by that proximity. If Stanley and his ilk would carry with them an apparatus for boiling their drinking fluid it would be rendered hurtless. All who have interested themselves in this theme know that cholera is produced and disseminated by the "holy well" of Mecca. It is situated in the valley, and, for centuries, has been

made an abomination from the washings of the circumjacent hills where hundreds of thousands of dirty pilgrims have encamped. As I write the cable brings word of an outbreak of cholera in this religious capital of the Mohammedan world. No wonder. And yet, even the monstrous water of the well of Mecca could be rendered at least little dangerous by boiling.

One more word. There may be a moral aspect to this subject. It is worth the while for prohibition or temperance apostles to bring a new element into their propaganda. If people are to drink only water, that beverage should be pure, and it behooves these missionaries to understand the philosophy of procuring a healthy substitute for dram-drinking. Their general disregard or ignorance of this matter is deplorable. I surmise that much of the incitement to stimulation arises from a disordered stomach, and that the insanity of that reported "diabolical apparatus" may come in a large degree from impure water drinking. If this be a tenable supposition one of the true ways of preaching, enforcing and maintaining temperance is through water that helps make and keep the stomach sane, the more so as we comprehend from the pathology of drunkenness that the insanity of the stomach antedates the ruin of the mind. The subtler psychologic possibilities I leave to the reader's fancy.

As, perhaps, collateral proof that what the physicians conveniently call "malaria" is not wholly the result of swamp proximity, I submit the following statement recently published by Mr. Walter Coote, who has spent considerable time in the Fiji islands.

He has seen, he says, Englishmen living in Fiji on the borders of almost stagnant estuaries with the densest and most rank vegetation around them on all sides, with mosquitoes and a hundred such insects infesting the district like a plague. In dry seasons their houses would stand in the very center of great plains of reeking ooze; in times of flood the muddy river will rise to their very verandas, and yet those people were robust and healthy.

He adds: "I have gone from there, and a few weeks later visited islands in the Solomon group or New Hebrides, where I have found a dry coral soil and high, well-drained land, upon which the pure trade wind blows freshly month after month, and all this but a few hundred miles from the Fiji group. Yet in these places it is almost death for a white man to spend more than a few months in the year on shore, and practically no one who lives ashore at all can hope to escape frequent and severe attacks of fever."

It would be worth while, Mr. Editor, for scientists, rid of their superstition on this subject, to examine the water supply of these localities. The probability is that wholesome water exists in the first-named place and contaminated water in the second. At any rate, judging from the revelations of Mr. Coote, I am impressed all the more with the idea that there is just as much error about "malaria" as there is about several other things which many physicians have traditionally ascribed as the source of disease and death.

I do not pretend, Mr. Editor, to assert positively all that is herewith recorded. I simply sketch some thoughts that have taken possession of my mind, which thoughts may be novel only in combination. I leave the formulation of these theories, surmises or facts to those who have the discipline, education and training for such weighty problems. I am content to awaken public interest for a common good. When I began this paper I did not expect to be led into such lengthened exploitation, but I hope that you and your readers will find some food for reflection, and that men wiser than myself may improve upon it.

JAMES R. RANDALL.

FLORIDA PHOSPHATES.

New Enterprises—Mining Under State Royalty—Anomalous Condition of the English Market.

[Special Cor. MANUFACTURERS' RECORD.]

BARTOW, FLA., August 1, 1891.

The Homeland Pebble Phosphate Co., a portion of whose works was destroyed by fire some weeks ago, is making rapid progress in the work of rebuilding, and will soon be in operation again. A spur road connecting the works with the Florida Southern Railroad is also well advanced, and will be ready for the passage of trains in a few weeks.

The phosphate inspector, Col. G. A. K. Stevens, has just returned from the lower Alafia river, where he has had a corps of engineers at work for several days surveying the river, taking soundings, etc. When he makes his report to the board of phosphate commissioners the latter will divide the area of the lower or navigable portion of the river among the three companies now mining there under State royalty, namely, the Alafia River Co., the Peruvian Phosphate Co. and the Tampa Phosphate Co.

In taking soundings a number of rich beds of pebble phosphate were located, and it will require many years for the companies above named to exhaust them; but the most extensive deposits are along the headwaters of the Alafia in Polk county, where the stream is not navigable, and the State makes no claim to royalty on the phosphate removed. Indeed, these deposits consist chiefly of land nodules, the stream covering but a small fraction of the phosphate area.

During to-day and to-morrow the track of the Charlotte Harbor Division of the Florida Southern Railroad between Bartow and Fort Meade will be changed from narrow to standard gauge. This change is of much greater importance than would appear from a mere statement of the fact, for though it is only twelve miles from Fort Meade to Bartow, there are seven phosphate plants within that distance now, and the number will be increased to ten or a dozen in a few months.

The seven companies above referred to are the Fort Meade Phosphate, Fertilizer & Land Co., the Virginia Florida Phosphate Co., Homeland Pebble Phosphate Co., Homeland Mining & Land Co., Whitaker Phosphate Co., Moore & Tatum Phosphate Co., and the Pharr Phosphate Co.

All the output of these mines except that which was shipped via Punta Gorda has heretofore been transferred from narrow-gauge to standard-gauge cars at Bartow at an expense of \$2 per car, an expense which the shipper will avoid in future.

NEW COMPANIES.

The board of phosphate commissioners at its late session granted exclusive mining privileges, under State royalty, to Messrs. Price and Lybass, and their associates, to mine in all the waters of Lake Hancock except sections 6, 7 and 18, which were leased to Messrs. Shrader, Wear, King and Canfield. The board also granted the exclusive right of mining Banana Lake to Col. A. A. Scott, of Lakeland. Lake Hancock is about three miles from Bartow, and Banana Lake is within five miles of Lakeland.

Col. G. A. K. Stevens, who owns a valuable land nodule deposit about four miles from Bartow and within two miles of Phosphoria, is now having his land thoroughly pitted, and will go North in about two weeks, visiting Baltimore, Washington and New York, to organize a company and contract for the erection of works. Your correspondent personally examined the deposit some time ago, and though a sufficient number of pits had not then been sunk to determine its extent, yet the yield of high-

grade pebble per cubic yard of crude material was highly satisfactory, and it is believed the pebble stratum is of great depth.

ANOMALOUS CONDITION OF THE ENGLISH MARKET.

The raisers of medium-grade phosphates may now find some consolation in the fact that in the London market such goods find ready buyers, while the supply of high-test rock is in excess of the demand, and low-grade rock is wholly neglected. But the peculiar feature of the market, as Coupler, Millar & Co.'s trade circular remarks, is that river pebble testing 60 per cent. is worth more per unit than 70 per cent. goods. In their report of July 16th Messrs. Coupler, Millar & Co. say: "There is always an outlet for a certain quantity of phosphate testing 70 per cent. and upwards, but when that quantity has been reached it is only possible to sell more by foregoing the premium usually paid for the higher test and reducing the price per unit. We have ample proof of this at the present time, when 70 per cent. Florida rock can be bought cheaper per unit than the 60 per cent. Peace river. The reason is not far to seek, for manufacturers who are accustomed to buy Carolina phosphate naturally prefer to take something of the same type rather than a material of which they have never had experience, which necessitates an entire change in their manner of working, and gives a super entirely different in appearance from that which their customers look for."

JAY SHRADER.

The Financial Situation.

The weekly circular of Hambleton & Co. has the following:

"Unless the monetary disturbances of last winter can be so called, we have had no panic, but are passing through a well-defined course of liquidation, which, while distasteful, is healthy and beneficial. Confidence is shaken, and men are more distrustful and disinclined to undertake new obligations or make fresh ventures, but the finances and trade of this country are established upon a firm basis. This we have proved by the ease with which we have absorbed the millions of securities returned from abroad and have liquidated our European indebtedness. Values have declined, but is it not most remarkable that there has been so little disturbance in the money market and so very few failures in the world of finance?"

"We are now waiting for the turn of the tide, and while men are inclined to grumble and complain of dull and hard times, let us remember that 'this, too, will pass away,' and that, having passed through a cycle of adversity, a period of prosperity is now due and will surely follow. Have we good reasons for such hopes? Yes, many.

"The prospects of trade and commerce are most promising, and all industries must be stimulated by the great crops with which this country this year is blessed. It seems to us that if we had had the directing of events and conditions ourselves, we could not have shaped them more favorably. First, we have a year of liquidation, which has stopped all purely speculative enterprises, has made men economize and curtail their operations, has caused all financial institutions to husband their resources and strengthen their financial condition, has compelled the reduction of expenses to a minimum, put a stop to needless railway extensions, and has brought us to a sound and safe basis from which to make an upward start; secondly, the force of circumstances has severed, to a large extent, the close connection between the financial operations of the government and the money market, and has enforced self-dependence upon our financial institutions; and last, but not least, the products of the soil are showered upon us a hundred-fold and a market for our surplus products is at hand. "Depend upon it, the present cloud has a

silver lining, and that depression and distrust will be replaced by confidence and improved values."

The Floods of the Mississippi.

The annual report of the Mississippi river commission to the chief of engineers contains a review of much interest and importance concerning the high water of 1891 as compared with that of the preceding year. From this review it appears that while the upper part of the Mississippi valley did not suffer as it has in the past, the flood below the mouth of the Arkansas river was one of the highest on record. The maximum discharge, as measured at Arkansas City, Wilson Point and Natchez, was greater than measured in 1890, while at Memphis, Helena, Red River Landing and Carrollton it was less. Out of a total length of levees of about 1,300 miles below Cape Girardeau, Mo., there were only 5 crevasses, aggregating about 1 mile. The Robinsonville crevasse was 550 feet wide, overflowed an area of about 62 square miles in Bolivar county and half as much in Coahoma county.

The Stella crevasse was 422 feet wide, and the maximum discharge 90,000 cubic feet per second. It overflowed 492 square miles, of which perhaps one-third would have been overflowed without any crevasse by back water from the Mississippi river through the Yazoo basin. The Concordia crevasse was 600 feet wide, discharged 1,000 cubic feet per second and overflowed 418 square miles in the third district and perhaps as much in the fourth. The Ferriday crevasse occurred after the river had fallen. It was 97 feet wide, discharged 3,400 cubic feet and was readily closed.

The Ames crevasse was 1,665 feet wide, and the maximum discharge was 91,000 cubic feet per second. It overflowed about 2,000 square miles, of which about one-tenth, or 151,000 acres, was under cultivation. The loss by it is estimated at \$8,000,000. The Ames and Nita crevasses, having been caused by rice flumes, the commission has resolved that hereafter no levees shall be constructed or enlarged by the commission in which any such device is allowed to remain.

The flood of this year did not differ greatly in volume from that of last year in the third district. In the second and fourth districts it was somewhat less in volume. In the second district there were no breaks last year, and but one this year. In the third district there were 17 breaks last year, with an aggregate length of about 3¼ miles, while this year there were but two, aggregating less than half a mile. In that district the overflow limits on the right bank included an area of 3,050 square miles, of which 2,500 were under water last year, and about 418 this year. On the left bank the overflow limits included an area of nearly 2,000 square miles, of which 1,900 were under water last, and only 554 this year. In the fourth district there were 27 breaks last year, 2½ miles in length, while this year there were but two breaks, aggregating 7,752 feet.

The wisdom and economy of the work done by the Mississippi commission under the act of Congress making appropriations for it are fully demonstrated by this statement. The saving from overflow as compared with former years was a sufficient compensation for all the expenditures that have been made.

The public will approve the determination of the commission to do no levee work where rice flumes or similar devices are permitted, in view of the enormous loss of \$8,000,000, caused by the Ames and Nita crevasses, which originated in rice flumes.

This review of the work accomplished and the savings effected by it will assuredly convince the incoming Congress that the Mississippi improvements are in charge of judicious and experienced engineers, and that their recommendations for future expenditures can be safely accepted and adopted.

GENERAL NOTES.

NOTWITHSTANDING the general financial depression, the Birmingham (Ala.) Age-Herald reports that over \$50,000 were invested in new buildings in Birmingham during the month of July. These figures do not include any of the large business blocks contracted for, many of which are now in course of construction. These, if included, would make the grand total cost of all buildings contracted for and being builded over \$600,000. Most of the \$50,000 is being expended on building improvements immediately contiguous to the city, which are not reported in the building permits.

AN ice famine is reported from the enterprising town of Ocala, Fla. During the excessive hot days, when ice was in the greatest demand, the East Florida ice factory overtaxed its capacity and broke down. Owing to the growth of Ocala and adjoining villages, the present plant is unable to make enough for the local demand during the hot months, and there is an urgent need for another factory or increased capacity in the East Florida plant.

THE Memphis & Charleston Railroad carried unusually large consignments of pig iron from Sheffield, Ala., to the Northern and Western markets during the month of July.

IT is announced that the first trip through the reconstructed Chesapeake & Ohio Canal will be made from Cumberland to Georgetown in a few days, and that 50 boats will be running by August 15. This number will be increased as rapidly as possible until a sufficient number are in the service to handle an enormous tonnage in coal, grain, lumber, lime, hay, etc. About \$200,000 have already been expended in repairs, and there remains a large amount of work to be done, in the way of repairs to the canal, besides the boats which are to be overhauled.

ROANOKE, SALEM AND VINTON, VA., have been trying to relieve the midsummer dullness by agitating the idea of a tripartite consolidation. The three towns consolidated would make a city of 30,000 people. This is something to be desired, but there are many who cannot see the wisdom of taking into the municipal corporation so vast an area as the country which lies between the cities and has but a handful of population. The expense of policing a city 10 miles long, it is thought, will be greater than the benefits to be derived from the increase in population. Consolidation seems to be losing in popularity. If the newspaper reports voice the sentiments of the people.

THE engineer corps engaged in running the route of the Norfolk, Wilmington & Charleston Railroad is reported to be making steady progress through the Great Dismal Swamp of Virginia and North Carolina. When last heard from the party was nearing South Mills, from whence probably two routes will be surveyed, one via Elizabeth City, the other farther to the north.

THE directors of the Augusta (Ga.) Exposition have decided to push the enterprise to success. At a meeting in Augusta last week they elected Mr. J. B. Platt, Sr., general manager. He will have headquarters in New York and will work in the North and West, while Manager Henry will remain in Augusta to perfect the work already started and to elaborate further features. No special attractions have been announced as yet, but Mr. Platt, who contributed largely to the great success of the exposition in 1888, says that the prospects are most flattering for fine exhibits in every department. All the subscribers are meet-

ing their third payment promptly, and many counties in Georgia and South Carolina have already promised to make special exhibits.

THE phosphate industry is booming in De Soto county, Fla., where a solid bed of phosphate has been struck a few feet below the surface. Land has advanced from \$1 to \$10 an acre, and there is considerable excitement.

THE advance in the value of land in West Virginia is illustrated by the sale of a tract in Nicholas county for \$42,000, for which four years ago its recent owner, Judge A. C. Synder, of Lewisburg, paid but \$90. It was then considered worthless, and was sold by the State for delinquent taxes. Since then a railroad has been built across and it has been found to contain ores of large value.

THE Virginia & Alabama Coal Co., whose mines and plant are on the line of the Georgia Pacific Railroad a short distance west of Birmingham, Ala., has entered into a contract with the Central Railroad of Georgia, by which it will for the next twelve months supply that company with all its coal. This is an engagement to furnish about 275,000 tons. There was brisk competition between coal companies for this contract. The Virginia & Alabama Co. now mines 1,500 tons daily. By September 1st it expects to increase that output to 2,500 tons. This company's customers are in all the principal cities of the South from Atlanta to New Orleans. It has also a considerable trade down the Mississippi river.

DR. WM. B. PHILLIPS is engaged in examining the gold fields of Alabama in the interests of the geological survey of that State. In a letter to the Birmingham Age-Herald he states that he is constrained to believe that gold mining as a profitable business will before long be reckoned among the industries of that State. He says: "The Alabama gold gravels are enough for a quiet, conservative business, conducted as business and not as a speculation, but they lend themselves with poor grace to the boomer."

ONE of the largest parties of experts that ever came to the United States from Europe for such a purpose arrived in New York recently en route for Eastern Kentucky to make a careful examination of a property there comprising about 120,000 acres, upon which a Belgian syndicate holds an option. Should their report confirm those made by American and English geologists this great property will be purchased and developed.

WHEELING, W. VA., is making arrangements to have constructed the largest electric-lighting plant of any belonging to a municipality. The electric-light commission, which was appointed to secure bids and decide which system to adopt, having held many meetings and studied the merits of all propositions with scrupulous care, finally decided to recommend that a contract be made with the Fort Wayne Co. for six 80-light dynamos and Hamilton-Corliss engines, with clutch pulleys, shafting and all other appurtenances, the same to cost \$85,420.

THE new tobacco barn invented by W. H. Snow, of High Point, N. C., is working a revolution in the methods of tobacco curing in the United States. Mr. Snow was a skilled New Hampshire mechanic who lost his health while serving in the Federal army during the late war. When peace was declared he was told by his physician that he must make his home in a more genial climate or die. After looking about awhile he located at High Point, and there he started a small mill for getting out shuttle-blocks of persimmon and dog-

wood, and spokes and other carriage parts of hickory for Northern customers. Of all the great business since developed in these lines he was the founder. Living near to the "golden belt" tobacco district of North Carolina, Mr. Snow saw the crude way in which that staple was cured and the losses cultivators were subjected to by it, and applied his inventive mind to the perfection of a method that should reduce the cultivator's work and the cost of it, and at the same time enable him to get higher prices on the average for his entire crop. The Snow tobacco barn and its appliances were the outcome. Now a company at Oxford, N. C., is making these inventions on a large scale, and orders are pouring in upon it not only from the "bright leaf" districts, but from many other sections where tobacco is extensively cultivated.

THE junction at Norton, Va., of the Norfolk & Western Railway system with that of the Louisville & Nashville is an event of the greatest importance not to these corporations alone, but to the general public as well. By this junction a saving of a hundred miles is made between Louisville, Ky., and tidewater at Norfolk. All the valley of the Ohio, all the mining and forest regions of the uplands and mountains, will begin soon to receive the benefits of this new route from the Mississippi to the seaboard. Probably Norfolk will be the first to realize its great value, for the direct traffic seeking that city by this line will assume large proportions as soon as all the arrangements for handling it are perfected.

LOGAN COUNTY, W. VA., is an immense undeveloped territory through which the Norfolk & Western Railroad will run on its way from Kenova, on the Ohio river, to Elkhorn, in McDowell county, a distance of 200 miles. Most of the grading on this line has been done, and the contractors are now laying rails from both its ends to meet at some point of junction. This road will be the great civilizer of the mountain regions it traverses. A large part of it runs through coal fields and virgin forests, both of which will give it paying freights when the through line shall be completed. A new vein of coal has been found on this line on Grapevine branch, an affluent of the Kentucky, that puts into Peter's creek on the Kentucky side. This vein, which is supposed by some geologists to be a part of the McDowell coal measures, underlies from 1,800 to 2,400 acres.

TARBORO, the capital town of Edgecombe county, N. C., has long been noted for its beauty as a residence city and for the enterprise of its people. Several years since, without outside financial aid, they built a cotton-spinning mill of the latest approved design, put in the machinery and began operations with a capital of \$160,000. This has done a good paying business. It runs 812 spindles and employs 150 people. At the Riverview Mills of Mr. John F. Shackelford 105 persons are employed in manufacturing fine hosiery and underwear. There are four cottonseed-oil mills in the city, the hulls and cake from which are made into fertilizers. Two tobacco warehouses are now under construction, the first to be called the Central, the other the Pioneer. Mr. John F. Shackelford is president of the Central company; S. S. Nash and C. W. Jeffreys, the managers, and A. L. Heilbronner is secretary and treasurer. Tobacco cultivation is new to Edgecombe county, which has heretofore been chiefly noted for its large cotton crops in favorable seasons. Several years since the experiment was tried, and it was found that a fine grade of bright leaf could be grown. Since then farmers have taken it up successfully, and there is a prospect that it will be one of their best paying and most reliable crops. The West Tarboro Land & Improvement Co. is building the Pioneer

warehouse. This company, composed of Hon. George Howard, W. E. Fountain and N. M. Lawrence, of Tarboro; Samuel L. Foster, of Norfolk, Va.; Wm. M. Powell, Thos. C. Pugh and Reuben Foster, of Baltimore, has purchased 253 acres within the corporation limits, and is laying it out as an extension of the city. This tract is in the highest part of the town, with an excellent natural drainage. Bounding it on two sides are railroad tracks, fronting on which are fine factory sites. The company proposes to construct besides the warehouse a large cotton mill and other industrial works.

A LOOSE bright tobacco warehouse has been opened in Richmond, Va., by Messrs. Davis & Gregory, of Oxford, N. C. This experimental effort to induce the cultivators of the bright leaf in one State to carry it loose to the other will be watched with interest. All the loose tobacco heretofore sold in Richmond warehouses of the dark grade grown in that vicinity. The dealers in that city have kept their buyers in all the large tobacco towns of North Carolina attending the breaks at their various warehouses. This has been an expensive system, from which the enterprise of the firm from Oxford may relieve them.

A BILL has been introduced in the Georgia legislature to incorporate the Maddox-Rucker Banking Co., with a capital stock of \$150,000, and the privilege of increasing it to \$500,000. This is a proposed enlargement of the old firm of Maddox & Rucker, which began business 20 years ago in Atlanta as merchants and nine years afterwards engaged in banking also. Their specialties were the manufacture of fertilizers and the handling of cotton, which branches the proposed charter permits them to continue.

THE Liverpool (Eng.) Weekly Post of July 4th contained the following personal announcement: "Mr. James Wright, of London, sailed in the White Star steamer Majestic from Liverpool for New York on Wednesday evening on behalf of a powerful combination of financiers to carry out extensive contracts in the Southern States." This gentleman was one of the original promoters of Middlesborough, Ky. He and his associates, London capitalists, have purchased an immense tract of land in Stewart county, on the Cumberland, where they propose to make a large development. Three thousand acres of this property at Bear Springs has been set apart as a town-site, and the work of laying it out has begun. This syndicate has organized as the Cumberland Land Co., with a capital of \$1,250,000. It has a force at work building a wharf for a steamboat landing on the Cumberland river, and is preparing to build a railroad 11 miles long from Bear Springs to a connection with the Louisville & Nashville Railroad at Carlisle, on Tennessee Ridge.

WHEN coal mine No. 6 at Elk Garden, W. Va., belonging to the company of that name, was first opened, horses were used to haul out the coal. Recently the tail-rope system of haulage has been adopted, which the New York Coal Trade Journal describes as follows: "An 80 horse-power, double-drum winding engine, geared five to one, erected by the Monongahela Manufacturing Co., of Monongahela City, Pa., furnishes the motive power and works like a charm. The rope extends one mile inside the mine; the trip of 22 cars is all collected at that point from two headings on the right and one on the left, above, and as close as convenient to the parting. The regular trip, as soon as cars are built, will be 50 cars; that accomplished, it is calculated for the trip to leave the parting inside and run by gravity until it reach the dump-house without stoppage. At present

the loaded trip is stopped 600 feet inside the mine mouth, and is pulled the remainder of the way by a five-eighths steel pulling rope; the tail rope is seven-eighths steel rope also."

THE Perkins iron mine, in the Russellville district of North Alabama, was leased by Mr. L. R. Perkins, a recent emigrant from South Dakota, who a few weeks since got his plant in operation. As a part of it he has a washer of his own construction that does its work simply and quickly. The ore is taken from a bank some 600 yards from the washer and thrown into a chute, through which it runs into the washer in a moist condition and is soon perfectly cleansed. The Ensley furnaces at Sheffield buy and use this ore.

THE grading on the Bristol, Elizabethton & North Carolina Railroad has been finished between Bristol and Bluff City, Tenn., a distance of 11 1-5 miles. On this route there are seven trestles aggregating 1,300 feet. The deepest is 160 feet long by 30 feet deep. The heaviest grade is 76 feet to the mile. The bridge over the river at Bluff City is 360 feet long, in three spans of equal length. The Bristol News states that the entire cost of this work has been \$123,200, and that the track-laying will cost \$50,400, making a total outlay of \$173,600 for the road between these two points. With the completion of this grade the line is now ready for the ties between Bristol and Elizabethton, and the rails have been purchased under contract for early delivery, consequently Bristol expects within 90 days to celebrate the completion of this part of the new railroad.

AT the annual meeting of the State Horticultural Society of Georgia, held last week at Quitman, there was a display of fruits that the delegates pronounced the finest ever made in that State. The floral exhibits were numerous and most attractive. From the Alabama experimental farm located at Auburn a splendid collection of grapes was received.

A CONTRACT has been made between the corporation of Memphis, Tenn., and the Raleigh Springs Railroad Co., by which the latter secures the right of way through certain specified streets from the heart of the city to the suburbs for twenty-five years. This is to be run by electric power on a track of standard gauge. The principal stockholder of this company is Mr. B. L. Duke, of Durham, N. C.

A JOINT commission representing both States has determined the boundary between Cherokee county, Alabama, and Polk county, Georgia, so that hereafter the people of that section will know in which State they reside.

THE Chesapeake & Ohio Railroad Co. proposes to build a second depot at Clifton Forge, Va., it having under construction one in the western part of the city. Of these the Valley Virginian says: "When these depots are completed Clifton Forge will be one of the best equipped cities in the State with depot facilities, all sections of the city then being in easy and safe reach of the trains."

THE citizens of Hamblin county, East Tennessee, will, August 22, vote upon the question of issuing bonds for \$25,000 in aid of the Unaka & Nollachucky Railroad. Should they be granted, this road will be built from Morristown to the Cranberry ore district. As the completion of the Morristown & Cumberland Gap Road will enable the former place to get cheap fuel, so the building of the proposed road will enable it to obtain supplies of the high-grade Cranberry ores. It is expected that the vote will be largely in favor of the bond issue.

THE NEW SOUTH.

A Young Business Man of 12 Years of Age at Middlesborough.

CONFLACRATION AND REBUILDING.

A Local Journalist—General View of the Country—Climate—An Evening in August—Comparisons.

[Special COR. MANUFACTURERS' RECORD.]
MIDDLESBOROUGH, KY., July 31, 1891.

Below is given the second part of Chapter II of Mr. Max LeClerc's book written on American topics, two previous letters having already appeared in these columns. It will be remembered that Mr. LeClerc is the gifted correspondent of *Le Journal Des Debats*, one of the most influential of the great dailies published in Paris.

PART II.

[Continued from last week—Translated from the French.]

"A soon as I arrived in Middlesborough I went straight up to the big hotel. This magnificent building is crowned with turrets and domes, which give it a graceful appearance. The porches, of which there are many, are long and broad, and are supported by graceful columns of carved wood, thus permitting the guests to obtain a magnificent view of the valley below and of the surrounding mountains. The interior of the house is furnished with exquisite taste, and contains every requisite necessary for the comfort of the guests. Fifteen months prior to my coming to Middlesborough there were scarcely 25 people living in this valley, and they were natives who knew nothing of civilization.

"At the breakfast table the next morning my neighbor was a young 'fellow' scarcely 12 years of age. He was dressed in a costume which is almost universally adopted by the men living here, and which consists of a flannel shirt, knee breeches and boots. The boy and I exchanged glances, but without saying a word, and as we did so it naturally flashed across my mind, what can this youngster be doing in this section of the country all by himself. On the other hand, he is probably equally as anxious to know all about me. Before breakfast is over he turns a smiling face towards me and asks me in the most pleasant voice who I am, where am I from, where am I going and what am I doing in Middlesborough. In the same breath he asks me in an anxious tone if I am here for pleasure or for business. We soon get into a regular conversation, and it requires but a few minutes to find out that this little gentleman is remarkably smart, that he possesses considerable experience, that he is acquainted with everybody in town, and that he is able to discuss business topics more like a man than a boy, and that he is thoroughly acquainted with all the enterprises in progress or in contemplation as if he were a man fully 25 years of age. I like the boy, and I cannot help admiring the energy of the youth. I find out that he is the son of a prominent manufacturer from Maine—one Mr. Davis, one of those indefatigable 'Yankees' who, after having started enormous business interests in the North, has come into the South to start new ventures. It is only a few months ago that Mr. Davis, Sr., left his wife and six of his eight children in Boston and came to this city with two of his youngest sons with the project of starting some large charcoal furnaces. After getting his enterprises well under way he returned to his Eastern home, leaving here all by themselves his two young sons, 12 and 11 years of age respectively, to watch over his interests.

"Before leaving, however, probably more to keep them out of mischief than to start them in business, he rents the 'news stand'

in the lobby of the Middlesborough Hotel and furnished the counters with newspapers, magazines, books, cigars and tobacco. It is only about two months ago that the two boys, under the firm name of the 'Davis Bros.' (the youngest firm in America, as a local paper calls them), started into business, and already they are earning quite a respectable living for themselves. They pay their own rent, keep their own cash book and ledger; they sign their own checks, and they make their own deposits in banks where they keep their own accounts; they have their own printed letter-heads, and keep up a regular business correspondence with the managers of the leading newspapers in America. They make all their own purchases, and for good luck they keep upon their counter a tame white mouse, which appears to be very devoted to them, and the little thing has become very useful by chewing up all the papers the boys cannot sell. With these duties to attend to they still find plenty of time to study the country, its resources, and to become acquainted with all the new arrivals and to know all the new enterprises that are to be established.

"The oldest one is called Harry. He is a bright and interesting little fellow. He knows every mountain path in the neighborhood, and the most hidden cave or deepest ravine is familiar to his eye; in fact, Harry knows everything and everybody for miles around. In a most graceful manner he invited me to accept his services as guide, which I accepted.

"The 'Davis Bros.' are also very popular with the 60 people living at the hotel. They dress well, and the guests of the house treat them as if they were grown-up boys. As an illustration, I heard one of the most noted engineers in the city, a man who is connected with the building of the large blast furnaces, answer in a most serious manner and with the utmost civility questions which were put to him by my young friend, and these questions bore upon the subject of the building of the plant.

"Together we started on our tour of inspection, both mounted on good riding horses, and as we proceeded towards the mountains we met upon the streets every type of mankind and men of all nationalities; in fact, no less than ten nations are represented here—Englishmen, Scotchmen, Irishmen, Italians, Frenchmen, Canadians, Dutch, Germans, Hungarians and Africans.

"Middlesborough, during the short period of her existence, has already experienced the devastating effects of two serious and destructive fires; the latter, which was the largest, occurred only a couple of months ago and destroyed over 80 business houses; it made a tremendous 'empty spot' in the very heart of the city proper on the principal thoroughfare, and where the finest buildings were being erected. To-day one sees in the burnt district tents of all sizes, which have become the homes or business places of the very men who, previous to this time, were the leading merchants and shopkeepers of the town; but with that American energy, push, enterprise and indomitable will which knows neither failure nor reverses, foundations are noticeable at every corner, rising Phoenix-like from the ground, built of brick or stone of the most solid description as if to defy the fiery elements of the future. These new houses and dwelling-places which are being erected naturally give employment to a large number of men, and keep the stone quarries, saw mills, planing mills and brick-yards busy from morning until night.

"On my way out I stopped to pay my respects to the local journalist, the editor of the Middlesborough Daily News. In a room covered with papers, volumes of all kinds, printing material of every description, I find a little sunburnt man who was dressed in a black cotton shirt, with his trousers tucked in his boots, a big piece of

tobacco in his mouth, and lying near at hand was an enormous revolver. He was keeping his accounts or else drawing some fancy letter-heads, or else again writing leading editorials for his little paper. He has 17 men all told in his employ, and his newspaper is printed on a cylinder press. The Middlesborough Daily News, he hopes, will grow with the city, and he is also ambitious enough to crave a circulation of 10,000 copies daily, then 20,000 copies, and heaven only knows where the circulation will stop.

"We stayed but a few moments, for our time was precious and our ride was to be a long one. We commenced the ascension of the high mountain which overlooks Cumberland Gap, and from the top of which a superb view of the country for miles and miles around can be obtained. I enjoyed the ride immensely, for I was in a most historic spot, and the scenery was as picturesque as it was beautiful and exquisite. When the 'Pinnacle' is reached the eye catches a glimpse of the valleys below and of the mountains in the distance, the whole making a picture which would almost set an artist crazy. It appears as if the country had been arranged purposely by nature with the intention to surrender its enormous wealth of coal, iron and timber to men only who were brave and daring enough to bring civilization with them into this once barren wilderness. Twelve hundred feet below us, as if at our feet, to the east of the Gap, is a little valley called Dillwyn Springs, where pretty little residences are already beginning to assume definite shape. Adjoining it is the city of Cumberland Gap, where the Messrs. Watts, two young Englishmen of considerable wealth and enterprise, have built their residence, and are now constructing in the city of Middlesborough magnificent blast furnaces and steel plants. Their home is a charming one, and consists of two large buildings, one villa and a lodge, the whole fenced in, and the lawns are marked with tennis courts and are covered with shade trees. These gentlemen have only to travel through the Cumberland tunnel, which is the dividing line between their home and office.

"The place is limited to Dillwyn Springs, but a little beyond is Powell valley, which extends from north to south between the Cumberland mountains; this valley then widens to give birth to the pleasure resort which is now rising magic-like in the beautiful parks of Harrogate. The site is one exceedingly well chosen. From our high elevation it appears as if a yellow line traverses the valley below. It is the railroad which unites Cumberland Gap to the railroads of Georgia and other points South. Away off, towards the south, in another little valley which appears even smaller than the one at our feet, is the charming watering-place called Hamilton Springs. Across the mountains in a direction running east and west, a superb view of Yellow Creek valley is obtained. It is there, on a vast plain surrounded by mountains, that Middlesborough is being built, and which in time will be able to accommodate, with ease, 50,000 inhabitants within her corporate limits. Further away, towards the west, this valley narrows into two forks, which are called Ben-net and Stony forks, and it is there the inexhaustible coal mines are located. And then amid the trees and rocks, as they are discernible on the mountain sides, innumerable yellow lines again become visible, which indicate the activity of the railroad companies extending their tracks far up into these forks to bring the great mineral wealth from the mountains into the valley below.

"This is indeed a charming country, and the scenery is such as can never be forgotten; the mountains have graceful outlines and are exceedingly picturesque. In every direction the eye turns mountains are visible

and their summits appear to succeed each other in almost parallel lines; their color reminds one of the peaceful waves of the ocean, which when near at hand appear to be of a dark green, and then gradually fading into lighter shades as the distance increases. Thus it will be seen that we have almost at our feet, from the high elevation I am now standing (the Pinnacle), on one side the city of work and of industry, where blast furnaces with enormous chimneys already have smoke and flame coming from them, and on the other the city of repose, of quiet, of pleasure and of luxury.

"The climate is excellent; it is bracing and still soothing; while the heat at noon in summer is almost intense, the nights are always cool and refreshing. The atmosphere is perfectly clear, and it is a good thing that it is so, otherwise the enormous number of workmen, who are compelled to live under tents in the midst of this new vegetation and virgin soil, which for centuries was never upturned, would be apt to contract the usual fevers which generally prevail under such circumstances.

"How well I remember a certain evening in August! An evening which was exceedingly beautiful and romantic! I was seated in one of those large easy rocking-chairs on the front porch of the Middleborough Hotel, enjoying the rest I felt entitled to after the long and fatiguing ride I had taken during the day. Naturally my thoughts wandered far away to my own beloved country, but again and again they would return to this marvelous place, impressing me each time more and more with the people I had met, with the enormous mineral and timber wealth of this section of the country, and with that almost God-like energy, courage, perseverance and determination of the men who were building such a city out of this once unfrequented spot.

"What a picture of beauty there was before my eyes! Not a breath of air was stirring, and yet the atmosphere was cool, refreshing and almost absolutely pure. Scarcely a mile beyond me the graceful outlines of the Cumberland mountains were easily discernible, as there was not a cloud in the heavens to mar the beauty of their course as they disappeared one behind the other on the line of the horizon. Almost beside me were a number of ladies dressed in full evening costume who were enjoying themselves in the large drawing-room of the hotel. Some were chatting, others were reading, while a number of younger ones were standing around the piano singing the choicest gems from well-known operas, and many of these were even rendered in French. My thoughts can well be imagined at this lovely picture with all its surroundings on the one side, and on the other as I glanced down the side of the hill and there saw nothing but mud, pools of water, piles of brick and stone and stagnant water in which the brilliant electric lights from the rooms of the hotel are reflected over and over again. This is indeed a comparison which it is unpleasant to dwell upon, but the picture is a true one, and these things had to be, for Middleborough was not yet a year and a half old, and the men that were building her had to provide first for that comfort and luxury for themselves and their families so as to be able to enjoy the great and hard work they had undertaken in the development of this section of the country. Further on the light of the moon reflected through many beautiful trees. For hours thus I studied these contrasts like pictures passing before my mind in rapid succession. On the hill where I am seated I am surrounded by the most refined and cultivated civilization. Below me only fifteen months ago there was nothing but virgin forests and a wild and inaccessible wilderness. This wilderness is now assuming the shape of a great commercial and

industrial center. The men who surround me probably care but little for the natural beauties of this magnificent country, or else again they seem to ignore the sudden disparities existing between their home surroundings on the hill and the uncultivated yet partially built city below. These 'Yankees' and these young Englishmen have come almost direct from college and the cricket field with a New York 'Herald' or a London 'Times' in their hip pockets, dressed in white flannel suits, wearing white caps and belts around their waists, but still these very men are doing the work of young giants."

O. O. HALL.

[TO BE CONTINUED.]

Bessemer Steel Made in Maryland.

Last week (Saturday) the first Bessemer steel was made at the immense works of the Maryland Steel Co. at Steelton, Sparrow's Point, on the Patapsco river, a few miles below Baltimore. The construction of this enormous plant, including the furnaces which have been in blast some time, consumed four years.

As the operation began at 4 o'clock P. M., there was not time to do more than make a few Bessemer steel ingots, reserving to another day the tests of the blooming and the rail-rolling mills. As there was no intention to do more than make a test of the working of the ponderous machinery, much of which is of novel design, all was accomplished that had been expected.

When everything was ready the molten iron was carried to the converters (each one of which can, if necessary, blow thirty tons at one heat), the air blast was forced into their bottoms, and kept up until the entire charge was in a state of violent ebullition, after which a small quantity of speiseisen or ferro-manganese was poured into the boiling mass, with which it was quickly amalgamated, and very soon thereafter the steel was ready for pouring into the ingot moulds. Every part worked smoothly, and the perfection of the plant up to that point was fully established. As the processes for transforming the ingots into blooms and then into finished rails are well understood, it can be taken for granted that the entire plant, with its many novel and economizing appliances, is complete, and that in due time this splendid enterprise will be in full operation, and be turning out Bessemer steel at the rate of 2,000 tons daily.

At a largely attended public meeting held at Staunton, Va., it was decided to build a commodious and handsome modern hotel on an eminence in the eastern part of the city. A committee of prominent citizens was appointed to confer with the authorities of the Norfolk & Western Railroad, and induce them to build a road from Stuart's Draft on the Shenandoah Valley Road to Staunton, a distance of but eleven miles. Of this proposed road the Valley Virginian says: "It would open up to Staunton a trade that does not come there now. It would accommodate a very valuable timber section, where the best white oak, hickory and walnut in this part of the State are found. It would give a Southern market direct for the hay, the flour and other farm products which now go that way by a circuitous and costly route, and would tap the richest and most valuable mineral districts in the county."

THE coal mine at Walnut Cove, Stokes county, N. C., recently opened by the Greensboro Coal & Mining Co., is in the famous Dan river coal field. There are several seams, but development began so recently that none but surface coal has been taken out. This is semi-bituminous, burns freely, giving out great heat and leaving no clinker.

WINSTON-SALEM LETTER.

The Conspicuous Development Going on in North Carolina—The Twin Cities' Prosperity—Miscellaneous News.

[Special Cor. MANUFACTURERS' RECORD.]

NORTH CAROLINA HEADQUARTERS OF THE MANUFACTURERS' RECORD. WINSTON-SALEM, N. C., July 27, 1891.

North Carolina has never had a feverish land boom, but in all that contributes to lasting prosperity she is probably without a peer in the Union in active development to-day. It is very doubtful whether any section is doing more steady, persistent and permanent work in the line of material progress than is the Old North State, and in none is the outlook for continued prosperity more excellent. Every town and city of present importance or future possibilities is doing a share of the development work now going forward, and in some instances, notably at Winston-Salem, the activity in building, in real estate sales and in enlarged facilities for doing business and turning out manufactured articles is greater than in any city of similar size I know of in the South.

To him who keeps abreast with the tide of affairs in America these facts are known and the reasons for their existence understood, and there is a widespread conviction that North Carolina is to be the theatre for the next tremendous development, such as that which made Birmingham and Middleborough and scores of other places of greater or less fame throughout the South.

The resources of North Carolina are so wonderfully varied and so vast in extent that their magnitude will not be thoroughly and universally appreciated for many years yet, though some idea of their magnificence is beginning to find its way into the mind of the industrial and commercial world. Her timber resources, from the cypress and long-leaf pine of the east to the poplar, walnut, hickory and oak of the west, are almost exhaustless in quantity and matchless in quality. Her soil and climate, as shown by her flora, are adapted to the cultivation of every crop necessary to the comfort of man, and the majestic mountains of her western borders are filled with almost every mineral known to the industrial world.

Imperfect transportation facilities and the Western craze for lands have diverted public attention from this wonderful empire, and it is only since the MANUFACTURERS' RECORD began calling the world's attention to what North Carolina possesses, that any marked appreciation of her great advantages has been apparent. But now the movement is well under way, and every indication goes to show that it will continue toward North Carolina for years to come.

In the eastern portion of the State the trucking industry has been developed until within a few years lands which were not wanted at \$10 and \$15 an acre are now eagerly bought up at \$100 to \$150 an acre, and a degree of prosperity is ensuing which is revolutionizing the section. In the middle part of the State tobacco factories, cotton factories, woolen mills, wood-working establishments and other industries are increasing in number and capacity in all directions, and steps are being taken everywhere to utilize the water-power with which more than half the area of the State is so marvelously blessed.

In the west, where the finest of iron ore is found in practically exhaustless quantities, development companies are industriously at work with plans and means and determination to at least make a beginning toward the verification of Mr. Atkinson's prophecy that here is the future iron-production situs of the world.

Over a large portion of North Carolina there exists a most wonderfully salubrious

and healthful climate as well, and in Western North Carolina, which eminent physicians have declared must one day become the world's sanitarium, there are springing up in almost every available region the elegant modern hotels so necessary to the attraction and entertainment of the health-seeking visitor.

The situation is a most gratifying one to every person interested in the upbuilding of North Carolina, and with the completion of railroads now building and in contemplation the work of development will go on with unprecedented activity. North Carolina will also reap great benefits from the World's Fair and from her own expositions to be held at Raleigh this and next fall. Creditable displays will be made, and people will be brought here to see for themselves, and that is the thing which counts. Once get the intending investor to go on the ground and personally investigate, and a new friend and champion is invariably won.

This is the reason why people in such substantial places as, for instance, Winston-Salem are so full of confidence regarding the future of their city and of the whole State. Industrious they are working out their destiny, increasing the capacity of their factories, their shops, their business, contributing to the upbuilding of their home city in every rational way, confident in the conviction that the development here and throughout the State will soon be such as to challenge the whole world's attention.

BEAUTIFUL Greensboro, N. C., possessing so many natural advantages, and now feeling in a marked degree the effects of the spirit of development which has taken hold of sister cities in the South, has commenced to advertise to the world the resources and attractions which have drawn immigration and capital that changed in a few years a country town to a thriving, busy city of 8,000 population. An album of Greensboro is a handsomely illustrated pamphlet issued under the auspices of the Greensboro Chamber of Commerce. It illustrates the leading manufactures, many of the handsome residences, large business houses and public buildings, and shows views taken at points of vantage in the streets and around the city. The faces of several prominent men who have prospered as they helped Greensboro to prosperity find a place in its pages. Beginning with the location of the city, which is the county seat of Guilford county, which has no debt of any description, the pamphlet proceeds with a brief history of Greensboro from colonial times down to the present. The genial, healthy climate, the elevation and the productions of the fair Piedmont section are mentioned, and the importance of the position as a railroad center is brought prominently forward. It is shown that on eight railroads and their branches 29 passenger trains, carrying on an average 107 cars, and 31 freight trains, carrying 733 cars, arrive and depart daily. 44 manufacturing cover a diversified field, employ many laborers and yield good profits to their proprietors. Three iron foundries, making stoves, wheels, plows, ironware, castings, etc.; one large cotton factory, four sash, door and blind factories fitted with the most improved machinery, saw mills, planing mills and tobacco factories are among the most important industrial plants. The North Carolina Steel & Iron Co. is now building a blast furnace, and other plants are soon to be established. Mercantile business in every line is shown to be in the most healthy condition. Investigation of the resources described is invited, and every new industry will be encouraged. The album of Greensboro will be sent upon application to the Chamber of Commerce.

VALUABLE PROPERTIES of all descriptions for sale in the growing city of

WINSTON-SALEM, N. C.

5 miles Electric Street Railroad. 112 Factories. Population 1882, 4,194. Population 1890, 16,471. Tobacco Center. Railroad Center. Paved Streets. The Future Metropolis of the South.

P. C. HUMPHREY, Real Estate Agent.

LEXINGTON, VIRGINIA.

THE ATHENS OF THE SOUTH.

The Seat of the Virginia Military Institute and the Washington and Lee University.

The Very Center of the Tremendous Development of the Shenandoah Valley. Equi-Distant from Glasgow and Goshen, from Buena Vista and Cornwall.

THE MOST DELIGHTFUL PLACE OF RESIDENCE IN VIRGINIA.

THE LEXINGTON DEVELOPMENT COMPANY

Has acquired beautiful lands bordering the corporate limits, laid them out into streets and lots, secured large and valuable industries, and now offer its lots to the public. These lots furnish an opportunity to secure homes in this town of 4,000 cultivated refined people, the capital of the county of Rockbridge, where living is good and cheap, where educational facilities are unsurpassed, and where chances for profitable speculation could not be better. These lots will be sold at low prices and upon favorable terms. There will be no auction sale, but purchasers can buy at any time through the real estate agents. Address

J. D. H. ROSS, President, or J. McD. ADAIR, Secretary and Treasurer.

THREE REGULAR STEAMSHIP LINES

HAVE JUST BEEN ESTABLISHED ON FIVE-YEAR CONTRACTS TO RUN FROM

Newport News, Va.

TO

LIVERPOOL, LONDON AND GLASGOW.

Newport News

Is the most rapidly-developing new seaport in the world.

It is the only port South of Baltimore that has a regular Steamship line to Europe.

It has three and others are under negotiation.

It has a 1,500,000 bushel grain elevator.

It will ship millions of bushels of grain this summer and fall.

It ships about 1,000,000 tons of coal a year to New England ports.

It has splendid piers and wharves, and a harbor big enough and deep enough to accommodate the "navies of the world."

It has the largest and best Iron and Steel Ship Building Yard in America, built by Mr. C. P. Huntington at a cost of \$3,000,000, now employing about 2,000 skilled mechanics, to be increased to 5,000.

IT IS THE FUTURE GREAT SEAPORT AND INDUSTRIAL CITY OF THE SOUTH.

Unequalled advantages for many lines of manufacturing and for general business.

FOR INFORMATION ADDRESS

C. B. ORCUTT, President Old Dominion Land Company,

No. 1 Broadway, New York.

NORFOLK, VA.

THE GREAT SOUTHERN SEAPORT.

Attention of manufacturers and others seeking investment or establishment in the South is called to the following facts:

Norfolk has the most magnificent natural harbor of the Atlantic Coast, having no bar to block its entrance, being within 25 miles of the ocean, sheltered from all vicissitudes of weather, always free from ice, with sufficient depth of water for the deepest draft vessels.

Hampton Roads, at the confluence of the James and Elizabeth rivers with the Chesapeake bay, is easy of access, navigable for vessels of any size or draft.

It has been designated by Congress as the rendezvous for the navies of the world in 1892-'93.

A 26-foot channel, well marked with buoys and light houses, leads to the wharves of Norfolk, and above the city to the Navy-yard.

Seven broad gauge and two narrow gauge railroads, controlling an aggregate of over 17,000 miles, put Norfolk in connection with all the points reached by railroads in this country, and two

The water supply is derived from large lakes of spring water seven miles distant, good not only for household use, but admirably adapted for manufacturing purposes, being absolutely free from all those substances that corrode boilers.

The climate, tempered by the proximity of the Gulf Stream, is mild. There is hardly ever ice or snow to interfere with out-door work or exercise.

The city is lighted with electric lights, and has as fine a fire and police department as any in the country.

All denominations are well represented in churches.

There are two good hospitals, one in charge of the Sisters of Charity, and the other under the Protestant organization of the city.

Educational advantages are excellent, there being a thorough system of public schools, together with numerous private seminaries for both sexes.

There are two good theatres, at which the best companies stop on their pilgrimages from the North to the South.

This is one of the largest pine lumber markets in the South; 350,000,000 feet were shipped in 1890.

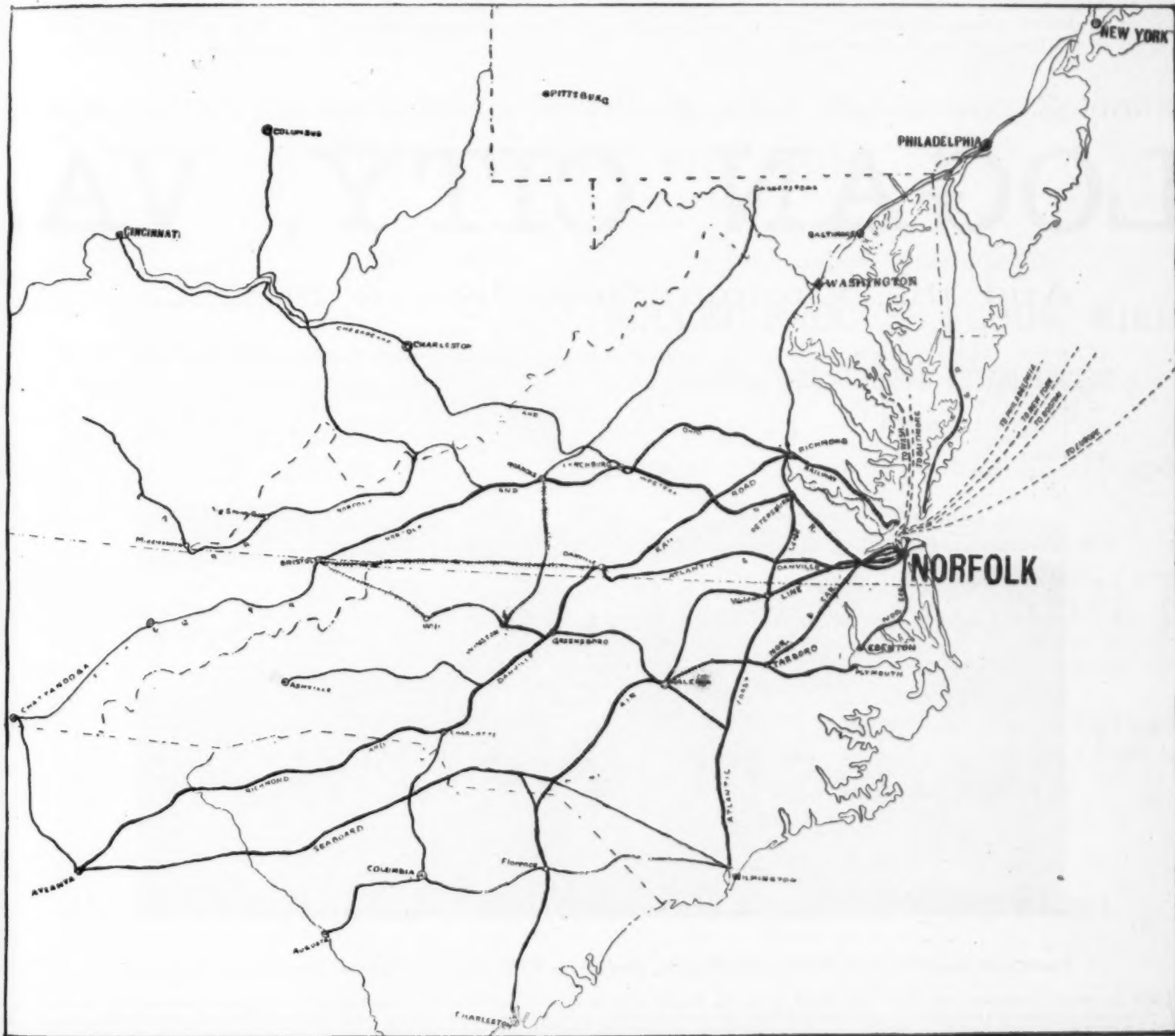
The best bituminous coal and coke are supplied by the C. & O. R. R. and N. & W. R. R.

Pig iron is delivered here by these two railroads.

Rolled iron and all of its products can be promptly and cheaply freighted by water to all of the leading seaports.

60,000 bales of cotton are annually marketed here, which makes this the most desirable point for the manufacture of cotton goods in the United States, superior to inland towns throughout the cotton belt, because a factory located in these is dependent on the local product marketed in three or four months, after which it has to draw from distant points or carry a sufficient stock for the year, or if the quality or grade in the locality is unsuitable, it is subjected to the expense of freight from distant points; but Norfolk being a large cotton market, not only furnishes an assortment of grades and quality, but enables the manufacturer to purchase his stock all the year.

It is superior to other seaports to New York, Boston and other markets or such supplies as the manufacturer frequently needs on short notice, while its railroad lines to the interior distribute goods to all points.



canals connect with the Sounds through the Carolinas.

First-class steamship lines ply to Boston, Providence, New York, Philadelphia, Baltimore, Washington, Richmond and other points on the Coast and Sounds.

Norfolk is within 20 hours of Boston by rail and 40 by water.

12 hours of New York by rail and 21 by water.

10 hours of Philadelphia by rail and 18 by water.

8 hours of Baltimore by rail and 12 by water.

7 hours of Washington by rail and 12 by water.

2½ hours of Richmond by rail.

23 hours of Cincinnati, and 34 hours of Chicago and St. Louis by rail.

A regular line of passenger and freight steamships ply to the Brazilian ports, and steamships, chartered mostly for the carriage of freight, ply to Liverpool and other European ports.

In 1883 the aggregate trade of Norfolk was placed at \$38,200,436, while five years later, in 1888, it had risen to \$65,011,656; in 1889 it increased to \$75,000,000, and in 1890 to \$100,000,000. The vessel tonnage of Norfolk in 1870 was 13,502 tons, cargoes valued at \$886,594; in 1880 it increased to 103,608 tons, valued at \$11,116,595; in 1887, 237,884 tons, valued at \$14,714,404; for the year 1890 the tonnage reached 582,846, valued at \$15,197,095.

It will be hard to find a parallel case in this country in two decades showing an increase of tonnage from 13,502 tons in 1870, valued at \$886,594, to 582,846 tons in 1890, valued at \$15,197,095.

The population of Norfolk, including Portsmouth, Berkley and other suburbs, is 70,000; the increase within the city limits has been 61 per cent. in the last ten years.

This increase, with the growth of business and enhancement of value in property of all kinds, is turning the attention of capitalists and investors to this point.

The City of Norfolk has a complete system of sewerage and is well paved.

The healthfulness of the climate, as exhibited by the death rate, is not surpassed by any city in the country, the percentage being in 1890 16.90 to the 1,000.

In addition to the manufacture of cotton and iron, there is at Norfolk opportunity for profitable manufacture of furniture and all articles made of wood, such as ash, oak, pine, poplar, cedar, cypress, juniper, gum, and for the manufacture of safes, stoves, hardware, sash, door and blinds, etc. The cost of labor ranges from \$1 to \$1.50 per day for unskilled men, and \$2 to \$5 for skilled men; females 50 cents to 75 cents a day unskilled, and 75 cents to \$2 a day for skilled; boys 33 cents to \$1 per day; girls 25 cents to \$1.25 per day.

The above quotations are for white labor.

Unskilled negro labor can be employed at 80 cents to \$1 for men and 50 cents for women.

Norfolk has been exempt from those labor troubles and strikes which have characterized Northern manufacturing cities.

The surrounding country being the great vegetable-growing section of the seaboard, and the rivers and bays being filled with the finest fish and oysters, make living cheap and healthy.

Although in banking facilities Norfolk is fairly well supplied, there being nine banks with an aggregate capital of about \$1,000,000 and aggregate deposits of about \$5,000,000, there is, however, a good opening for another bank.

Norfolk offers a field for the establishment of jobbing houses in dry goods, boots, shoes, hats, caps, notions, drugs, tinware and all other kinds, excepting wholesale groceries, in which she is well supplied.

The country lying to the southward west of Norfolk furnishes the markets to which goods from here are distributed in exchange for cotton, corn, wheat, peanuts and other crops.

The NORFOLK INDUSTRIAL DEVELOPMENT CO. has been organized for the purpose of furnishing information and assisting the establishment of manufacturing enterprises.

Free sites can be obtained on the railroad lines around the city, and reasonable subscriptions will be made to the stock of manufacturing enterprises, provided they are meritorious, but no proposition will be entertained from any but bona fide concerns, using good machinery and stocked on a business-like basis.

Capital invested in machinery is exempted from taxation for ten years, and will probably always continue so.

For further particulars, address

WALTER F. IRVINE,

SECRETARY NORFOLK INDUSTRIAL DEVELOPMENT CO.

VIRGINIA IN THE LEAD!

VIRGINIA STEEL, IRON & SLATE CO., Richmond, Va.

Capital \$2,000,000, in Shares of \$100 each, par value,

Chartered under the laws of Virginia.

OFFICERS.

F. T. ANDERSON, Howardsville, Va., President and General Manager.
I. E. GAINES, Richmond, Va., Treasurer.
J. G. HANKINS, Richmond, Va., Secretary.
T. P. WILLIAMS, Lynchburg, Va., Mining Engineer.

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F. T. ANDERSON, Richmond, Va. ALEX. CAMERON, Richmond, Va.
H. W. FLOURNOY, Richmond, Va. S. BLANCHARD, Richmond, Va.
WM. G. TAYLOR, Richmond, Va. T. P. WILLIAMS, Lynchburg, Va.
J. J. HICKOK, Richmond, Va.

LOGAN CITY, VA.

And the Virginia Steel, Iron & Slate Co.



Favorable Reports from Professors Rogers, Campbell, McDonald, Hotchkiss, Procter and Williams.

WHEN the attention of capitalists and others was directed to the vast resources of the South, some years ago, the general rush then was for North Alabama; afterwards the claims of North Georgia, North Carolina and East Tennessee commanded notice, but now "Old Virginia" has the lead, and in the heart of Virginia's Mineral or Piedmont Section is LOGAN CITY, on the borders of the counties of Albemarle, Nelson, Buckingham and Fluvanna.

LOGAN CITY is so situated that the numerous leads, veins and deposits of steel-making ores, gold and copper ores, slate and soapstone, limestone and manganese and other valuable minerals are on every side, in every direction, and near at hand. Nature has wondrously favored this place as a location for furnaces, ferro manganese works, slate and stone works, woodworking plants, factories, lumber mills, woolen mills and other mills and works, which altogether would make Logan City a great city of diversified industries. The different works could defy competition and would pay handsome profits; and the shares of the Virginia Steel, Iron and Slate Company, of Richmond, Va., would become valuable. Eminent geologists and mining experts have visited and examined the mineral section and leads of ores near Logan City, and their favorable reports are printed in the prospectus of the company, which, besides official statements, reports, analyses of ores, etc., contains a number of views photographed from different points. The capital of the

Company is two million dollars (\$2,000,000), in shares of \$100 each, and that every two shares carry a free lot bonus; and every twenty shares (\$2,000) will carry a villa site (not less than one-half acre) in addition to ten lots in Logan City.

The payments for shares are easy, namely, five dollars at time of subscription, and not more than ten dollars per share is to be paid at each assessment, and assessments in no case to be made oftener than once a month. About 4,000 acres are suitable for a residence and business city, and the balance of the properties which have been secured (about fifteen thousand acres) are selected mineral tracts. No place in the South offers better advantages for investors, manufacturers, etc., than Logan City, and no company has better or brighter prospects before it than the Virginia Steel, Iron & Slate Company. Send for a prospectus to Richmond, Va., and be convinced. Free sites and other privileges will be granted to manufacturers and others who will establish works and industries at Logan City.

In the prospectus will be found a highly favorable report from the pen of Prof. John R. Procter, Chief State Geologist of Kentucky, and a most practical report from the practical and experienced mining expert, Thos. P. Williams, M. E., who has had nearly forty years' experience in the mining and geological world.

WRITE FOR ANY PARTICULARS TO THE

VIRGINIA STEEL, IRON & SLATE CO., - RICHMOND, VA.

LAWRENCEBURG, TENN.

A Coming Residence and Industrial City, Educational Center and Health Resort.

Small Industries Wanted to Work Up Our Cheap and Splendid
TIMBERS AND PIG IRON.

No place like it for
FURNITURE FACTORIES,
CARRIAGE WORKS,
CARRIAGE AND WAGON TIMBERS,
AGRICULTURAL IMPLEMENT WORKS,
CHAIR FACTORY,
BARREL FACTORY,
TOOTHPICK FACTORY,
WOODEN PIPE FACTORY.
ANYTHING OF WOOD.
Or
MACHINE SHOP,
FOUNDRY,
Or ANYTHING OF IRON.

LAST WEEK WE LOCATED A

ROLLER PROCESS FLOUR MILL,

A GOOD WOODWORKING ESTABLISHMENT

— AND A —

Male and Female College.

A CANNING ESTABLISHMENT

Is promised for next fall.

Every person who visits Lawrenceburg is impressed with advantages of its location.

Not a wheel has stopped during the recent hard times. Our factories are all making money, and there is room for many more.

SMALL INDUSTRIES--DIVERSIFIED INDUSTRIES, That Is What We Want.

Some Excellent Investments can be Made in Lawrence County Timber and Mineral Lands.

ADDRESS

V. S. PEASE, Secretary,

Nashville, Tenn.

THE LAWRENCEBURG LAND & MINERAL CO.

Or Room 63, 185 Dearborn St., Chicago, Ill.

Lawrenceburg, Tenn.



TREDEGAR

postoffice.

Come
and
See What
We've
Got.

Jacksonville,

ALABAMA.

ALEX. A. ARTHUR, General Manager.

E. E. MALCOLM, Assistant General Manager.

THE

American Association, Limited.

Capital - - \$2,000,000.

Owners of Ninety-six Thousand Acres of Land in the Immediate Vicinity of Cumberland Gap, containing COAL, IRON, MINERAL PAINTS, CLAYS, ZINC, LEAD, TIMBER and BARK, SANDSTONE and LIMESTONE, MARBLE, CEMENT ROCK, CHALYBEATE, SULPHUR and FREE-STONE SPRINGS.


The American Association, Limited, is a foreign corporation, having as shareholders the most prominent and best known capitalists of England, Scotland, France and the United States. It is the leading spirit and parent organization of the various companies operating in and around Middlesborough, Kentucky, and was the originator of the development of that giant young Industrial City and of its many subsidiary companies. It also built and controls the Knoxville, Cumberland Gap & Louisville Railroad, 73 miles long, including

THE GREAT TUNNEL THROUGH CUMBERLAND MOUNTAIN.

Also the Middlesborough Belt Railroad, 26 miles long, and with its capital it is developing and building Cumberland Gap City and surrounding country. It will

LEASE ON ROYALTIES

Its Coal, Iron, Clay, Timber and Quarry Privileges. It will rent cleared farms on reasonable terms. It will sell or lease lands suitable for manufacturing industries of all kinds.

 For Illustrated Books, Maps, Plats, Forms of Lease, Particulars as to Royalties, Rents, Prices and all other information, address

ALEX. A. ARTHUR,

or

E. E. MALCOLM,

General Manager.

Assistant General Manager.

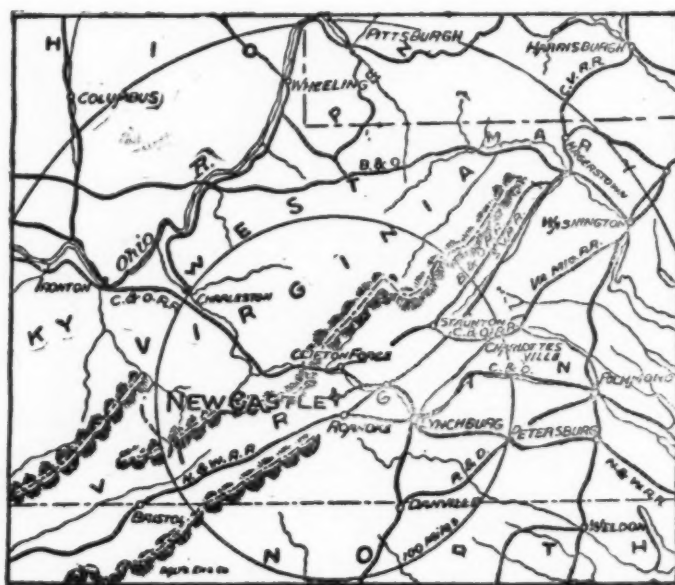
MIDDLESBOROUGH, KENTUCKY.

NEW CASTLE, ^{Craig}County, VA.

THE IRON BONANZA,

Convenient to Fuel Supply.

*A City of Immense
Possibilities without
a Rival in all that
goes to Create
Wealth and Power.*



*A Home for Invalids
in which to
Lengthen out their
Lives, and for all
to be and Remain
Healthy & Happy.*

PARADISE OF THE HUNTER AND HEALTH SEEKER.

Future City of the Alleghanies and
Center of Iron Production.

Commodious Hotel for the Entertainment of Summer Guests.

2,000 TOWN LOTS FOR SALE.

FOR INFORMATION ADDRESS

A. E. HUMPHREYS, Prest., New Castle, Va.

THE BEST INVESTMENT ON THE MARKET

IS THE STOCK OF THE

EAST RICHMOND CO.

Par value of shares, \$25. Payments each month per share, \$1.00. Twelve shares, costing \$12 per month, or \$300 in all, entitles the holder to one lot free, the lot to be decided by a drawing. The \$300 worth of stock participates in all the profits of the Company derived from the 3,000 lots left to the Company after the drawing and those reserved for free sites to factories and all other interests of the Company.

East Richmond consists of about 1,000 acres of manufacturing and residential property, the most desirable around Richmond, the center of which is only two and a-half miles from the City Hall, the center of the city. For the purchase and improvement of this property the Company issues \$1,000,000 of stock as described above. The Company has secured factories which

WILL EMPLOY 1,000 HANDS.

These buildings are now being erected, and will be in full blast in three months. This will give East Richmond a population of several thousand in the near future, residences for which are contracted and now being erected. Considering the above, with its close connection to Richmond proper, as described below, East Richmond offers a golden opportunity for investment.

Population of Richmond and suburbs,	-	105,000
New houses per annum,	- - - -	1,200
Banking capital,	- - - -	\$4,500,000
Bank clearings,	- - - -	\$112,000,000
Number of manufactures,	- - - -	783
Different kinds of manufactures,	- - - -	99
Increase in 1890,	- - - -	59
Value of manufactured products,	- -	\$34,500,000
Jobbing sales	- - - -	\$32,000,000
Miles of electric street railway,	- - - -	27
Miles of horse street railway,	- - - -	10

10,000 MILES OF RAILROADS

Center in Richmond. Water navigation to all points of the world. No point in the whole country can offer such inducements as the East Richmond Company. The lots drawn with the stock will be very valuable. At a recent sale lots the same distance from the city brought \$500 and \$600. For full information address

DAVID W. REINHART, General Manager, 819 E. Main Street, Richmond, Va.

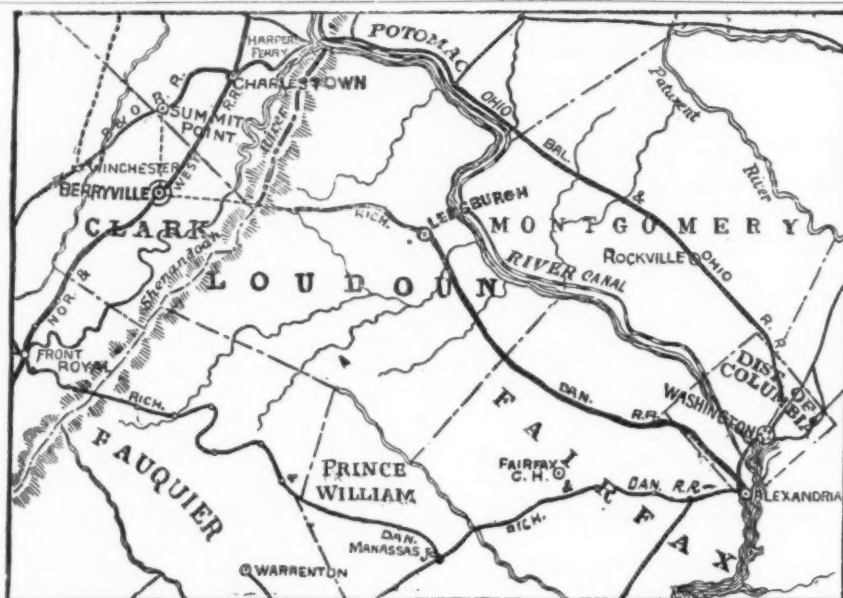
A RARE OPPORTUNITY FOR INVESTMENTS.

Berryville, ^{Clarke} County, Virginia.

✱ IN THE LOWER SHENANDOAH VALLEY. ✱

Within 65 Miles of Washington and 105 Miles of Baltimore on the Norfolk & Western Railroad, and on a Projected Connection with the Baltimore & Ohio Railroad by a Line $6\frac{1}{2}$ Miles in Length.

IRON ORE.
CHEAP FUEL,
READY ACCESS
TO MARKETS,
FINE CLIMATE,
FERTILE LANDS,
GOOD DRAINAGE.



ABUNDANCE OF
PURE MOUNTAIN WATER
FOR DOMESTIC
AND MANUFACTURING
PURPOSES.

THE BERRYVILLE LAND & IMPROVEMENT COMPANY is Preparing to Put on the Market by Early Spring ONE THOUSAND LOTS FOR BUSINESS AND RESIDENCE PURPOSES.

FREE SITES OFFERED for Manufactories. Commodious and Substantial HOTEL in Process of Construction.

SEND FOR PROSPECTUS AND OTHER PRINTED MATTER. ADDRESS

BERRYVILLE LAND & IMPROVEMENT CO., Berryville, Virginia.

As A LOCATION for Manufactures

Of Iron and Wood and for General Industrial and
Business Enterprises,

FRONT ROYAL, VA.

INVITES INVESTIGATION.

Its location, at the junction of the Norfolk & Western Railroad (Shenandoah Valley line) and the Richmond & Danville's branch, give it excellent transportation facilities. It is only a few hours' ride distant from Washington.

The Norfolk & Western's direct line to Washington will be built from Front Royal.

There is no Finer Agricultural Country in the World than the Famed Shenandoah Valley, in which Front Royal is Located.

A WIDE RIVER WITH SWIFT CURRENT FURNISHES WATER POWER
AND MAKES DRAINAGE PERFECT.

Front Royal is a Prosperous Town, with an Extensive Mercantile Business
and Many Manufacturing Enterprises in Operation and
Under Construction.

INVESTIGATION OF ITS ADVANTAGES IS INVITED BY THE

Front Royal--Riverton Improvement Company,

FRONT ROYAL, VIRGINIA.

TO TIMBER LAND BUYERS.

We Offer for Sale to Cash Buyers Several Choice Tracts of
Western North Carolina

HARDWOOD TIMBER LANDS,

At \$3, \$4 and \$5 per Acre.

THESE LANDS are Timbered with Poplar, Oak, Hickory, Chestnut, and other Hardwoods. The Stumpage has been variously estimated by different mill men to cut from 6,000 to 15,000 feet of merchantable Timber to the acre.

Reckoning the Stumpage at the low price of \$1 per thousand, the STUMPAGE ALONE will yield many times the price of the lands. [We want our money to improve town property with.]

Two-thirds of the land, when cleared, will be of value for agricultural purposes; one-third is adapted for corn and other cereals, and one-third for fruit-raising and tobacco culture.

These lands are in the so-called "Thermal Belt"—fruit growing and grape culture. In the bright-leaf tobacco belt. In the all-the year-round resort section.

Within eighteen miles of where George Vanderbilt is building a million-dollar palace.

In a section of country that is rapidly developing a good local market for all grades of lumber.

Seven to nine miles from one railroad.

Four to eight miles from another.

Thirty-three-cent rate to Boston and New York.

Projected railroads will run two miles from one tract, four miles from another.

TITLES GUARANTEED.

7,200 Acres in one tract.

4,500 Acres in another.

2,000 Acres in another.

J. MATHEWS,

SECRETARY GLEGHORN CO.

Rutherfordton, N. C.

These lands will not remain on our hands long at the above-named prices, and our advice to intending buyers is "Don't wait to correspond, but come at once, look the lands over and secure these undoubted bargains in timber lands."

J. MATHEWS, SECY.

Rutherfordton, North Carolina.

Population: 750 in 1890, 1,500 in 1891.

RAILROADS.

CAROLINA CENTRAL RAILROAD (Seaboard Air Line.)
CHARLESTON, CINCINNATI & CHICAGO RAILROAD.

The above were built to this place only a few years ago.

The following are PROJECTED RAILROADS.

Asheville & Rutherfordton Electric Railroad.

Spartanburg, Rutherfordton & Cranberry Railroad.

Knoxville Air Line, extension of the Carolina Central.

RESOURCES.

HARDWOOD TIMBER, all varieties abundant.

Untouched Forests of Oak, Poplar, Hickory, Chestnut, etc., etc.

IRON ORES,

From which iron was made for years in this vicinity in a crude way for local consumption.

FERTILE FARMING COUNTRY.

FRUIT GROWING,

THE THERMAL BELT.

GRAY GRANITE.

FIRE-CLAY.

ADVANTAGES.

AS A HEALTH RESORT.

The Finest Climate, Superior Drainage, Pure Water, Medicinal Mineral Springs.

AS AN INDUSTRIAL CITY.

Cheap Fuel, Cheap Supplies, Cheap Labor.

AS A HOME,

Good Schools, Good Churches, Good Society.

PROSPECTS.

Within a few years RUTHERFORDTON will become

A RAILROAD CENTER.

The Base of Supplies of a Great Lumber District.

A MANUFACTURING CITY.

of No Small Importance.

AN ALL-THE-YEAR-ROUND RESORT.

NOTE.—Three-fourths of all the desirable lot property within the corporate limits of Rutherfordton, is the property of



FREE SITES
DONATED TO MANUFACTURERS.



IN WINSTON-

THERE IS REAL ESTATE

In North Carolina, and Conspicuously so in Winston-
Than Anywhere Else

If you keep pace with the development of this great nation you know that this is North Carolina's year. In percentage of increase of population she leads every Southern State east of the Mississippi river, West Virginia and Florida alone excepted. If you know anything about this vast empire of mineral, timber and agricultural wealth you know Winston-Salem has more established factories, does more business and has brighter prospects for a great future than any other city in North Carolina.

As prices are low and a great development here in progress, this is the place to buy town lots. Even during the midsummer, there has been a steady demand for city property, 90 per cent. of which was for immediate use for stores or residence purposes.

Now is the time to buy. There will be a season of unprecedented activity in Winston-Salem this fall, and you can get in on the ground floor figures just now.

There are about 12,000 more people in the twin cities now than in 1880. This growth was made without any artificial aids, and represents just that many more manufacturers, business men and wage workers.

There have been marketed in Winston in the past nine months 14,000,000 pounds of leaf tobacco. The end of the tobacco year will probably see 3,000,000 more pounds marketed here. The average price paid is about 12 cents a pound. There are less than 30,000 people in Forsyth county. So there is paid out in hard cash for this one item at least \$60 per head per annum for every man, woman and child in the county.

There are 36 plug tobacco factories, and there are about seventy-five other factories—extensive wagon works, woolen mills, cotton factories, etc.—and they pay out over \$1,000,000 a year in cash for wages. This is over \$3,000 a day—nearly 25 cents for every man, woman and child in the city.

Is it any wonder that with such a stream of life blood being constantly pumped through her arteries Winston-Salem should be the most substantial, liveliest and best town of its size in the upper South?

There are 90,000 acres of timber land in Forsyth county alone—heavy oak forests, interspersed with hickory, walnut,

If you desire Lots in WINSTON-SALEM
views, pamphlets or other

PETER M. WILSON, Manager West End Hotel & Land Co.
F. M. SIMMONS, President Winston-Salem Land & Investment Co.

G. W. MASLIN, ——— Development Co.

W. F. ANDERSON, Manager North Winston Land & Improvement Co.

WINSTON-SALEM,



SALEM, N. C.

ACTIVITY RIGHT NOW.

Salem, there is More Development Work Now Going on in the Whole Country.

poplar and pine. Dozens of woodworking establishments find profitable employment for their capital. Does'nt it seem certain that dozens of others would find the field a profitable one?

Undeveloped coal fields, immense deposits of magnetic iron ore and acres of lime cliffs in the neighborhood, suggest possibilities in iron industries which are demonstrated in the development of new towns everywhere in the South.

Winston-Salem is the center of four railroads, and its North, South, East and West connections will soon be unsurpassed.

\$500,000 worth of new buildings were put up last year. There will be \$1,500,000 worth erected this year, including a \$100,000 hotel, and the demand is still far from being supplied.

Electric car lines, electric lights, telephone service, water works, Belgian block and macadamized streets are some of the necessary luxuries now enjoyed.

Having an altitude of more than 1,000 feet, with an average summer temperature of 80 degrees, and a mean winter temperature of 40 degrees, and an annual rainfall of 48 inches, it has an advantage in climate which has for a century given this section a great reputation for healthfulness.

The famous Salem Female Academy and the graded and military schools give unexcelled educational advantages.

There are seventeen churches, and the tone of the community is of the most elevated character. Salem is the center of the old Moravian settlement, and Winston is an energetic and in every respect creditable offspring.

Six conservative and responsible land companies offer for sale business, manufacturing and residence properties in and immediately adjoining the city, all within a mile of the public square.

There is no city in the South with so abundant a supply of such beautiful suburban residence property in all directions as Winston-Salem possesses.

The substantial basis upon which Winston-Salem is built, her wealth-producing power, her rich surrounding country, her present needs and her inevitable increase in every material way, invite the manufacturer, the capitalist, the investor, the builder and the mechanic from everywhere, and promise him sure and generous rewards.

or any of its additions, plats, birds-eye information, write to

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NORTH CAROLINA.

SAVERNAKE, *Rockbridge County,* VIRGINIA.

FOR 1891 Offers to the Investor a Most Desirable Opportunity for Profit.

LOTS for Business and Residence Purposes

AT PRICES TO SUIT THE TIMES.

SAVERNAKE adjoins Buena Vista on the Southwest; fronts on Shenandoah Valley Railroad and on James River Division of the Chesapeake & Ohio Railway. High Grade Manganese and Iron Ores to steel and iron trades. Safety and profit to investors. Healthy and picturesque homes at moderate prices to lot buyers, notwithstanding the late depression due to monetary stringency and unusually severe weather.

The industries secured for Savernake have all been retained, and will proceed to build as soon as the weather permits.

THE SAVERNAKE PRESSED BRICK COMPANY.

This Company, formed to manufacture from the superior clay deposits found at Savernake, the highest grade pressed, front and ornamental brick, is now erecting the pressed brick works,

CAPACITY 40,000 BRICK DAILY.

The capital of the Company is \$30,000, full paid. The grade of brick to be made here sells now for \$30 per 1000 at Buena Vista, and allows a very fair margin of profit, insuring large dividends to shareholders.

A limited amount of stock remains unsold.

Prospectus may be had and all information obtained by application at office of Savernake Pressed Brick Co., Savernake, Va.

It is expected that the works will be completed and in operation in thirty days.

THE SAVERNAKE INVESTMENT CO.

The Savernake Investment Company has been organized under a very liberal charter, granted by the Circuit Court of Rockbridge county, Va. It is empowered to do a general

CONSTRUCTION AND IMPROVEMENT BUSINESS,

to buy, sell, rent or lease real estate, to remove encumbrances from the same, to accumulate funds for investment, loans, manufacturing, banking commercial or other purposes, as may seem to the Directors most profitable.

The Company has purchased seventy-five residence lots and twenty-five business lots in the town of Savernake for \$35,000 of paid-up stock

When it is considered as a basis for the subscription of \$35,000 to the capital stock of the Savernake Investment Company that its 100 lots are paid for in full and represent a positive value of \$27,500 more than the amount paid for them, it must readily suggest to any one the very desirable character of this stock. Under the charter the following are the officers of the company for the first year:

OFFICERS:

PRESIDENT, J. HOWARD WAYT, Staunton, Va.
SECRETARY AND TREASURER, J. E. B. STUART, Buena Vista, Va.

VICE-PRESIDENT, THOMAS DUNLAP, Savernake, Va.
MANAGER, J. M. HENKLE, Buena Vista, Va.

DIRECTORS:

J. HOWARD WAYT, Staunton, Va. THOMAS DUNLAP, Savernake, Va. W. H. H. LYNN, Staunton, Va. J. M. HENKLE, Buena Vista, Va.
SAMUEL SADDINGTON, London, England. STEVENS M. TAYLOR, Lexington, Va. J. E. B. STUART, Buena Vista, Va.

Subscriptions may be sent to and all information had of J. E. B. STUART, Secretary and Treasurer, Buena Vista, Va.

in the Investment Company. The present market value of the above lots is \$62,500, thus leaving \$27,500 over and above the amount paid for the lots as a profit, belonging to the stockholders.

It is proposed to make the minimum stock of the Company \$70,000, to be divided into shares of \$50 each; 700 shares will be issued to the Company in full payment for the 100 lots purchased, and the remaining 700 shares (\$35,000) will be placed on the market on the following

TERMS:

Ten per cent. at the time of subscription,	\$ 5 00
Ten per cent. on call of the Directors,	5 00
Ten per cent. every thirty days thereafter,	40 00
Par value,	\$50 00

The \$35,000 realized from the sale of the stock will be used in building upon and improving the lots purchased, or for other purposes named in the charter, as may be deemed most profitable by the Board of Directors.

ATTENTION is called to the fact that no Building or Investment Company yet organized at any of the new towns of Virginia has failed to realize large profits.

THE VALLEY INVESTMENT COMPANY, of Buena Vista, organized July, 1890, capital \$10,000, on October 1st, with a paid-up capital of \$4,000, showed net earnings \$6,000.

THE SOUTHWEST VIRGINIA INVESTMENT COMPANY, composed of Philadelphia capitalists, organized about two months since, with a capital of \$100,000, now shows profit of \$33,000.

THE HOME INVESTMENT COMPANY, of Buena Vista, commenced business about September 1st, 1890, with \$3,000 paid in, and on the 15th of October last, reported as actual undivided profits \$1,710, and an estimated profit of \$23,000, representing the difference between the cost of their property and the market value.

THE LEXINGTON INVESTMENT COMPANY commenced operations at Buena Vista about twelve months since, with a proposed capital of \$30,000. Paid \$10,750 for 50 lots; after collecting 50 per cent., declared the stock paid up, and could realize \$420 per share if the property were placed on the market.

Capitalists Desiring Prudent Investments

In Southern Manufacturing Enterprises, conducted by experienced specialists in works with an established trade for years and proposing to remove to

• • • SAVERNAKE • • •

with the coming spring, can address the management as below.

THE LINES OF MANUFACTURES PROPOSED, ARE:

Steel Ingots.

Under one of the new direct processes, now commercially established, affording large profits and worthy of closest investigation.

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Including Spring Steels and Mining Tools, Picks, Mattocks, &c., &c.

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High-grade goods in real and imitation Bronze, Silver and Nickel-plated goods, &c., with established reputation and extensive trade. A most desirable opportunity.

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With advantages believed to be unsurpassed by those of any other company formed for this purpose, viz:

Ownership of valuable Tin Ore lands of demonstrated value in the Blue Ridge Tin field of Virginia.

Promotion of Steel and Steel-Plate for Tinning on the spot from ores controlled by the Company, at minimum of cost.

Management of various branches by specialists of experience in Tin mining, dressing and smelting; in steel metallurgy; in Tin-Plate making and marketing.

Management of finance by capitalists of experience and position in the financial world.

Control by ownership of the best, and most generally used abroad, Tinning process—patented—and of various other late and improved devices for the most economical production of Tin Plate.

Demonstrated and verified cost and profit sheets will be furnished principals meaning business.

Steam Engines, Boilers,

Complete Power Plants, Iron Bridges and General Machinery Works, established 1840, trade general throughout United States. Management of first respectability. Investment most desirable.

Hydraulic Cement Works.

Deposit large, running through 1,200 acres; quality stated to be same as James River cement. Location, within half a mile of two parallel railroads. Demand strong. A most profitable industry.

Fire-Brick Works.

Clay in large supply, near railroad. Has been tested and pronounced first-class. Every facility for manufacture at large profits.

All or any of the above offer safe and desirable investment for capital on business principles, at bed-rock prices, and with no "promoter's funds."

The owners of these works, with the exception of two—the Tin-Plate Works and the Hydraulic Cement Works, which are new—have concluded to

remove them to Saverlake after examination of the locality, the raw material the advantages over present site.

All plants are at expert appraised value; trade shown and capital invested demonstrated.

Capitalization is, in every case, upon these data, and necessary additions for removal and extension, and is entirely "without water."

Northern Investors

In Town Mortgages have here an opportunity to obtain the superior advantages and profits of Southern Manufacturing Enterprises, combined with experience, skill and established trade.

The establishment of Saverlake as an

Industrial Town

requires capital upon a large scale, and from various sources. Experience teaches that investors are guided by and select from, those opportunities offered in and by the journals of much established repute and widest circulation in their specialties.

The Manufacturers' Record

Has been selected because of its thorough knowledge of Southern investments, its unparalleled success in attracting attention to honest opportunities for Southern enterprise, and because in a largely extended advertising more direct results and more business has been received from it than all other advertising mediums used.

The above enterprises are all ready to proceed at once to building at Saverlake. All offer legitimate profit, and are offered only subject to strictest investigation, and on this basis only.

Such a group of industries will demand homes for a large population and for those to supply their necessities and luxuries.

Saverlake and Extensions.

Will offer for the season of 1891 some 2,000 desirable BUSINESS AND RESIDENCE LOTS. Prices of these will be in no case speculative. A marked reduction and favorable terms to those who will contract to build their own homes on purchase of lot. A liberal and equitable concession for cash purchases, and to building investment and manufacturing companies.

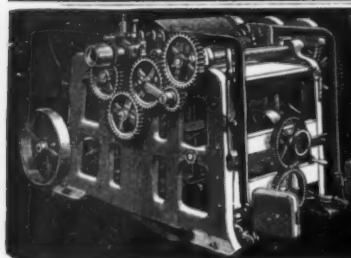
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May address for information and particulars THE LOCH LAIRD ESTATE & MINERAL CO., LIMITED, OFFICE, 30 LIME STREET, LONDON, E. C.

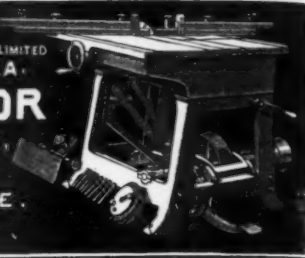
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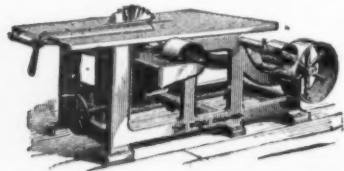
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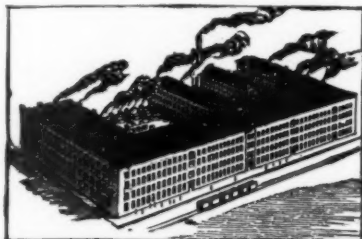
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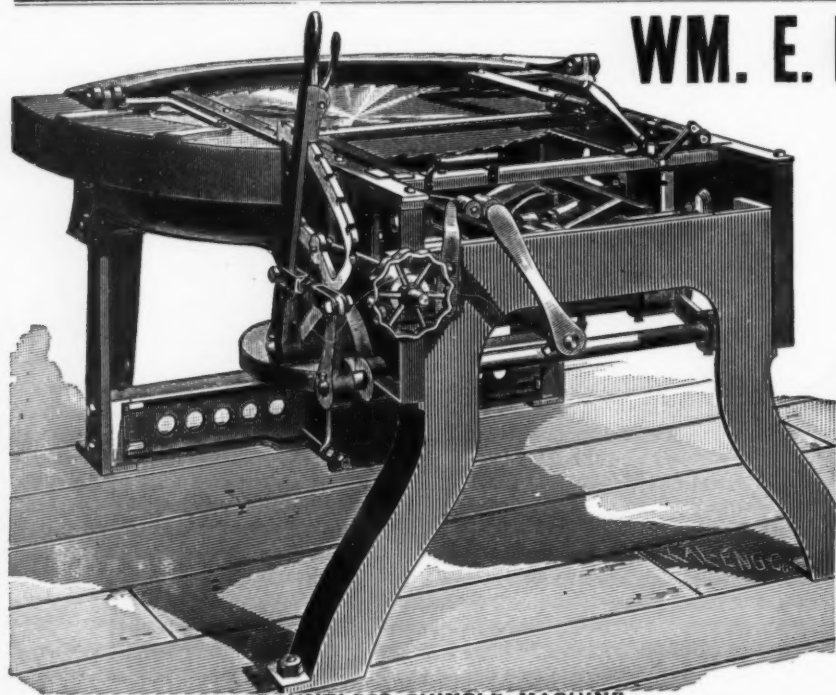
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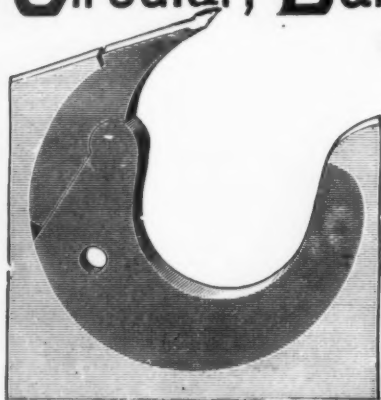
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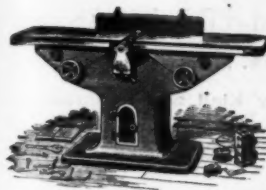
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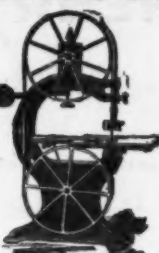
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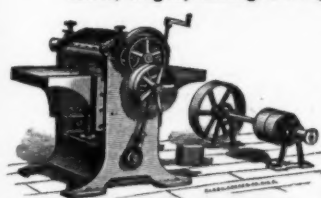
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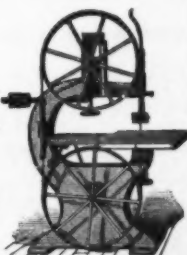
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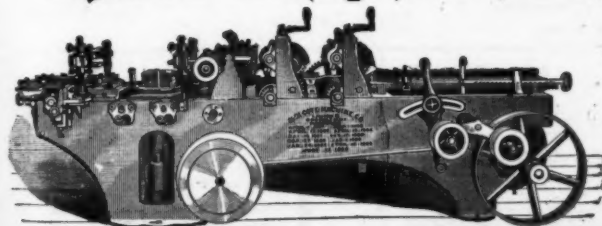
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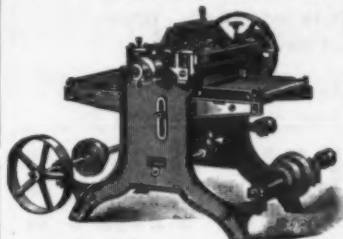
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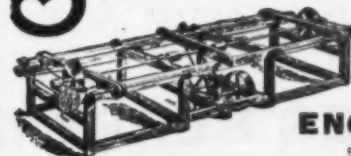
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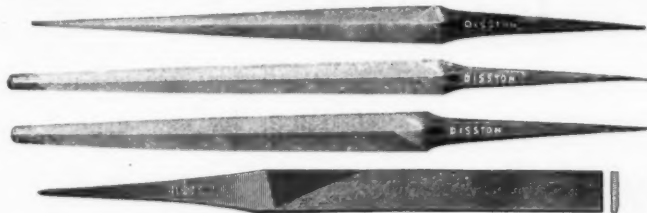
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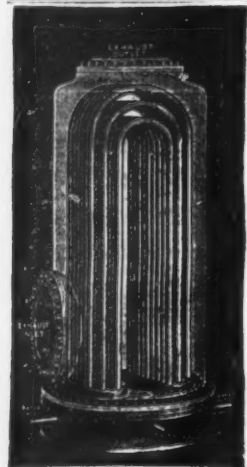
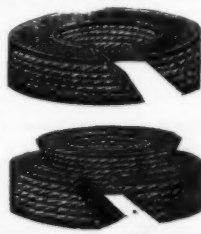
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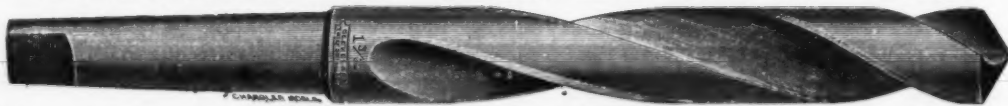
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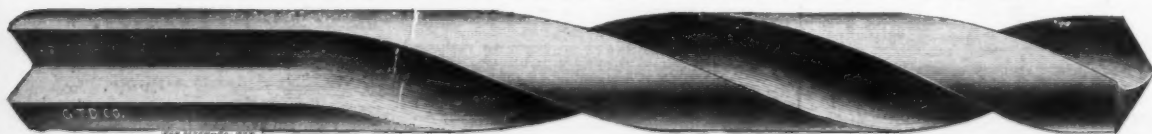
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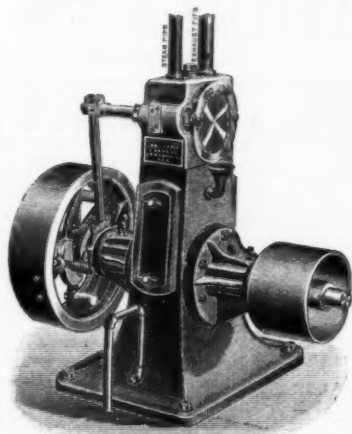
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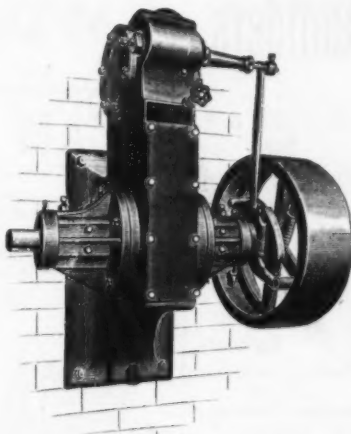
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The best engine in the market for direct connection with any high speed work.

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The engine is different from any other in the market, but has been in practical operation for more than two years, and to-day commands the market in New York for high speed engines for duty within the limits of its power.

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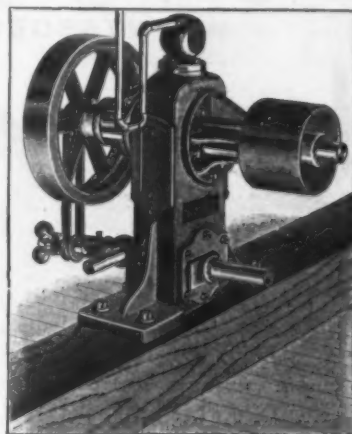
No. 3, capable of from 0 to 4 H. P.

No. 4, capable of from 0 to 8 H. P.

No. 5, capable of from 0 to 13 H. P.

This engine is built either as an automatic cut-off engine, or as a throttling engine, or if required for a blower engine, is built without governor of any sort. Is also built as a right and left hand engine, running in either direction. Requires no attention beyond being supplied with dry steam and proper lubrication. Is the only Bracket engine in the market. It is fully guaranteed to give satisfaction. *Silent in operation; durable and efficient; reasonable in price.*

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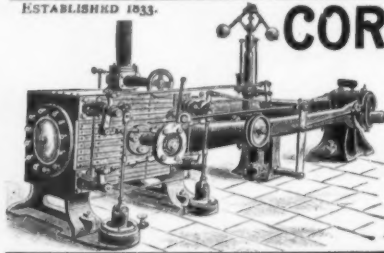
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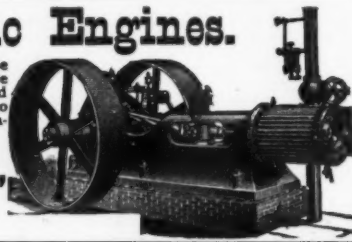
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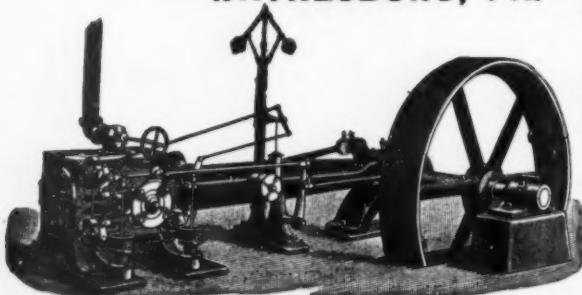
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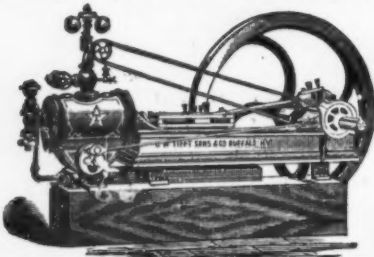
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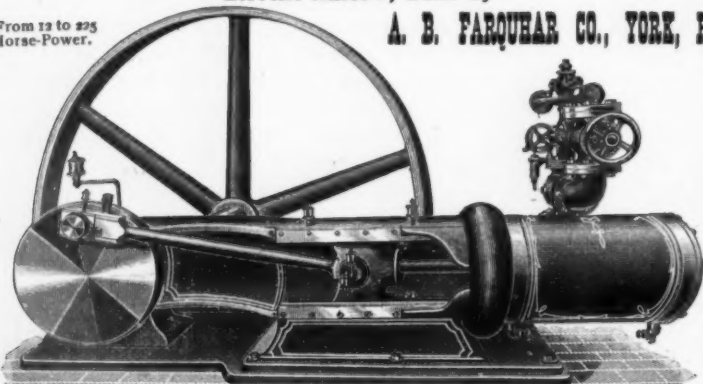
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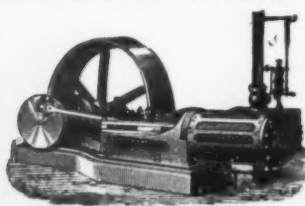
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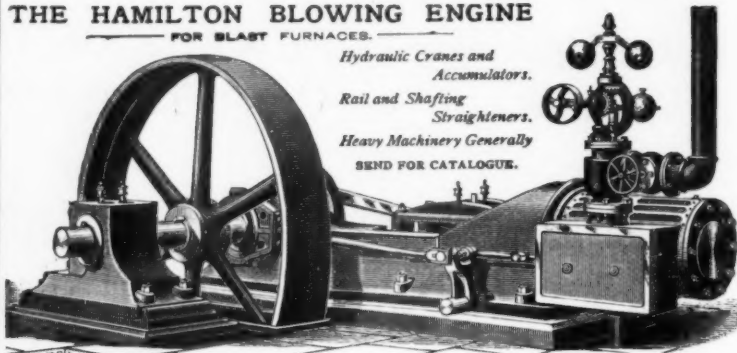
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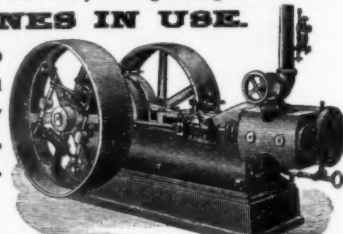
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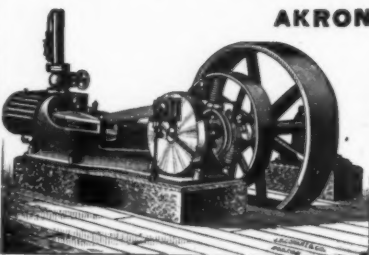
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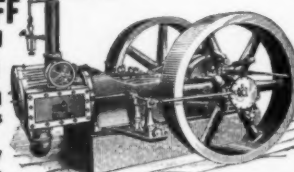
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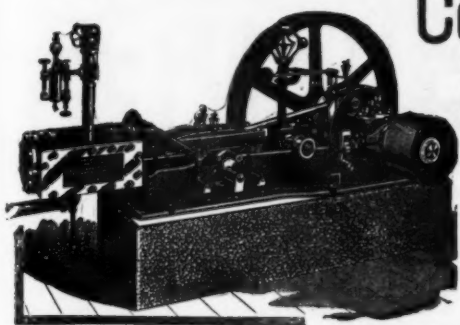
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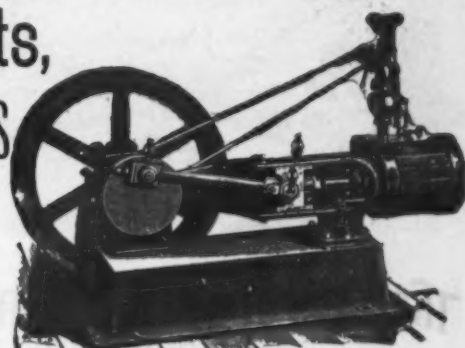
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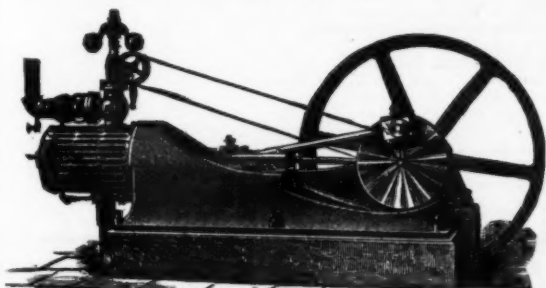
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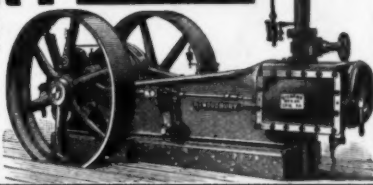
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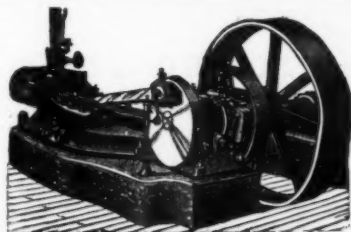
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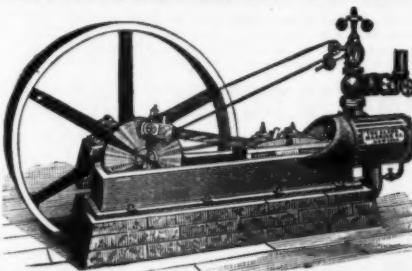
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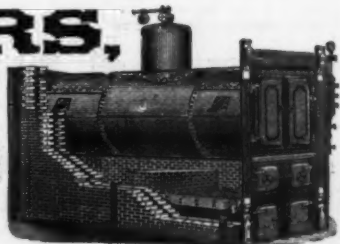
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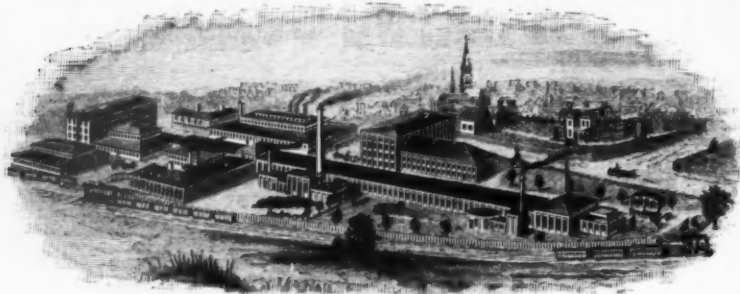
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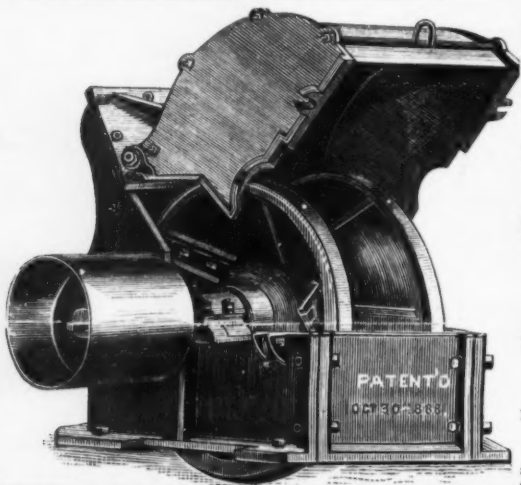
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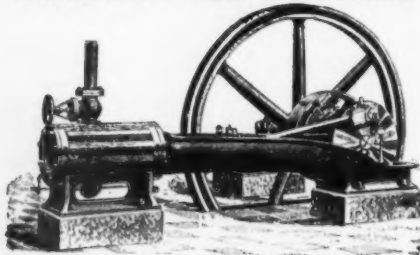
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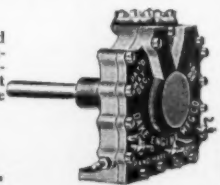
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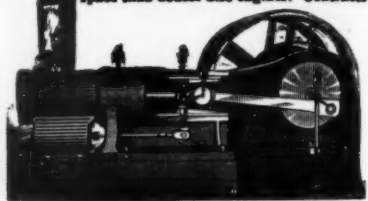
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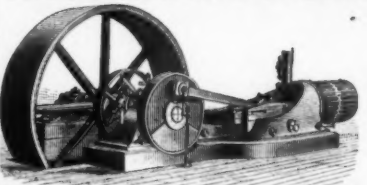
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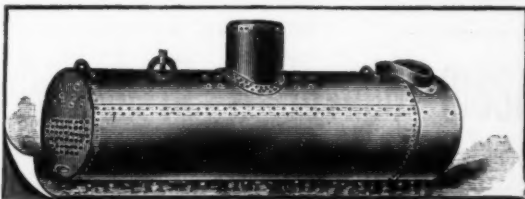
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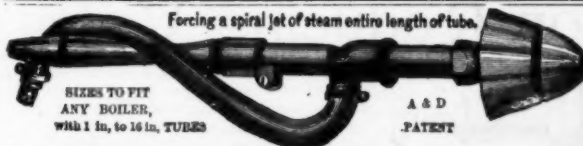


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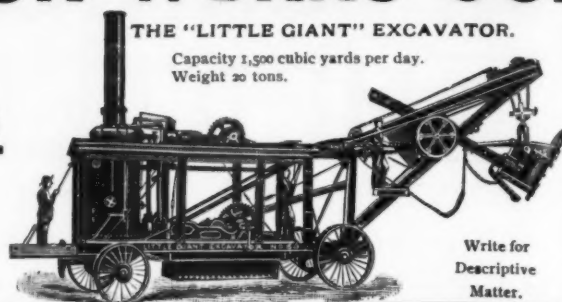
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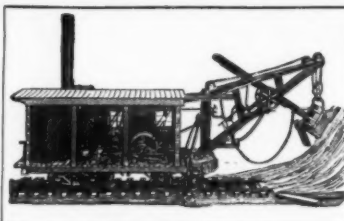
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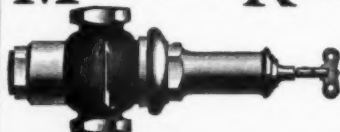
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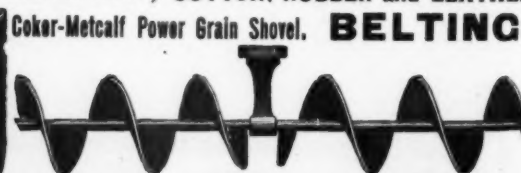
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Railroad Construction

Alexandria, Va.—Electrical Railroad.—A company will probably be formed to construct an electrical railroad.

Archer, Fla.—Railroad.—Joseph Hawthorn has, it is stated, contract for laying 30 miles of track on the railroad being built from Archer to Dunnellon by D. G. Ambler, of Jacksonville, lately mentioned.

Atlanta, Ga.—Railroad.—A bill has been introduced in the legislature chartering a company to build a railroad from Atlanta to Manchester and through certain parts of Clayton county. The incorporators are Mr. Harralson, W. R. Hammond, C. W. Smith, R. H. Conner and others.

Barnwell, S. C.—Railroad.—Mike Brown, vice-president of the Carolina Midland Railway Co., has submitted a proposition to build his road from Barnwell to Augusta, Ga., on condition that the citizens of the latter place subscribe for a liberal share of bonds, to be issued at the rate of \$12,000 per mile, to build the extension. The distance is 40 miles.

Callahan, Fla.—Railroad.—D. E. Maxwell, general manager of the Florida Central & Peninsular Railway Co. (office, Jacksonville), states that there is nothing in the rumor of his company building a road from Callahan to Savannah, Ga.

Carrollton, Ga.—Dummy Line.—The Carrollton Street Railroad Co., previously reported as organized to build a dummy line, has applied to the legislature for a charter.

Charleston, W. Va.—Railroad.—The subscription of \$100,000 to the stock of the Charleston, Clendennin & Sutton Railway, recently reported, has been voted by Charleston, Elk and Big Sandy districts.

Clarksville, Tenn.—Railroad Bridge.—The Keystone Bridge Co., of Pittsburgh, Pa., has, it is stated, commenced the construction of a new iron bridge across the Cumberland river for the Louisville & Nashville Railroad Co. (office, Louisville, Ky.)

Clifton Forge, Va.—Railroad.—A. Nuttals is reported as to build 4 miles of railroad in the New River district.

Clifton, Tenn.—Railroad.—The town has, it is stated, voted to subscribe \$10,000 to the stock of the St. Louis & Birmingham Railroad.

Cookeville, Tenn.—Railroad.—The C. C. King & Bros. Construction Co. secured contract for building the extension of the Nashville & Knoxville Railroad (office, Lebanon), lately referred to. The distance is 7 miles, and 10 miles more will be let to contract the latter part of September.

Crossville, Tenn.—Electrical Railroad.—H. V. B. Smith, of West Superior, Wis., is interested in the project, lately mentioned, to build an electrical railroad.

Cumberland, Md.—Railroad.—The engineering corps previously noted as placed in the field by the West Virginia Central & Pittsburgh Railroad Co with a view to selecting a practicable route for building an extension, has completed a survey to Hagerstown, a distance of 78 miles.

Dalton, Ga.—Railroad.—The bill which passed the legislature incorporating the Dalton, Spring Place & Eastern Railroad, referred to in last issue, has been approved by the governor and become a law. Paul B. Trammell can give particulars.

Denison, Texas—Railroad.—The stockholders of the Hutchinson & Southern Railroad Co. (office, Hutchinson, Kans.) will, it is reported meet August 25 to perfect the necessary plans for extending its road, lately referred to, to Denison and letting the contract for same.

Dover, Tenn.—Railroad.—The Cumberland Lands Co., recently organized, will, it is stated, build a railroad from its property to Carlisle, a distance of 11 miles. The line is said to be surveyed and located ready for contract.

Dover, N. C.—Railroad.—The railroad mentioned in last issue as being constructed by the Goldsboro Lumber Co. for logging purposes will be known as the Dover & South Bound Railroad. It will be standard gauge and extend southward from Dover a distance of 10 miles, and will also be built north from Dover 7 miles.

Florence, Ala.—Electrical Railroad.—The survey of the Florence Electric Street Railroad, recently reported, has been commenced. The road will be about three miles long. The Florence Land, Mining & Manufacturing Co. can give particulars.

Fort Worth, Texas—Railroad.—The City Railway Co. has been chartered by H. N. Talbot and W. C. Winthrop, of Fort Worth, and Stanton D. Loring, of Newton, Mass. The capital stock is \$100,000.

Galveston, Texas—Railroads.—The Southern Texas Construction Co. has been chartered to build railroads and railroad bridges.

Greenville, Tenn.—Railroad.—The Lehigh Valley Coal, Iron & Railroad Co. has been chartered by Luther C. Wolkins, George H. Drew, Charles W. Boynton, of Boston, Mass., and others. The company proposes building a rail-

road from a point at or near Greenville via Alameda, Coney Branch, Newport, Sevierville and Fair Garden to Knoxville, thence via Vancouver, Kingston, Crab Orchard, Crossville, Ben Hur, through DeKalb county and thence to Nashville, with a branch to run through Claiborne and other counties to Middlesborough, Ky. The promoters of the scheme claim that the road will be built at once, the survey commencing in September.

Harriman, Tenn.—Railroad.—The Nashville & Harriman Railroad Co., lately reported as chartered to build a railroad in a westerly direction to Nashville and in an easterly direction from Harriman to some point on the East Tennessee, Virginia & Georgia Railroad, will, it is stated, soon commence surveying its road to Nashville.

Hawkinsville, Ga.—Railroad.—A bill has been introduced in the legislature to incorporate the Hawkinsville Railroad.

Hearne, Texas—Railroad.—Grading is about completed on the Hearne & Brazos Valley Railroad, recently reported. It will be 10 miles long, and T. C. Westbrook, president, will receive bids until August 20 for laying the track, material to be furnished by the company. Rolling stock has not yet been purchased.

Hopkinsville, Ky.—Railroad.—The city has voted to subscribe \$115,000 to secure the extension of the Ohio Valley Railroad (office, Evansville, Ind.) from Princeton to Hopkinsville, mentioned in last issue. It also guarantees right of way and terminal facilities.

Kingsland, Ark.—Tram-road.—The tram-road from Kingsland south to the Ouachita river, lately noted, will, it is understood, be built by S. A. Graves, W. H. Starr, H. C. Draham and C. M. Danes.

Leadville, Tenn.—Railroad Bridge.—It is understood that bids have been invited for replacing the East Tennessee, Virginia & Georgia Railroad Co.'s (office, Knoxville) bridge over the French Broad river, referred to in last issue, with an iron structure.

Madison, Ga.—Dummy Line.—J. H. and T. C. Holland, T. P. Gibb, J. H. Adams, Jr., and others are the incorporators of the Madison & Eatonton Dummy Line Co., mentioned in last issue. The capital stock is \$25,000.

Memphis, Tenn.—Electrical Railroad.—The franchise for the building of an electrical railroad to Raleigh Springs, lately mentioned, has been granted to W. R. Hall, of Chattanooga; B. L. Duke, S. R. Read and others.

Morristown, Tenn.—Railroad.—Hamblen county will hold an election on August 22 to consider a proposition to issue \$25,000 in bonds to aid in the construction of the Unaka & Nolachucky Railroad, projected from Morristown to a point in the Cranberry iron district.

New Berne, N. C.—Railroad.—W. B. Blades & Bro. expect to extend their 6-mile railroad, referred to in last issue, a distance of about 18 miles.

New Castle, Va.—Railroad.—The Craig's Creek branch of the Chesapeake & Ohio Railroad (office, Richmond), lately mentioned, will be extended. One fork will be pushed further up Craig's creek and another built up John's creek.

Norfolk, Va.—Railroad.—The Norfolk & Western Railroad Co. contemplates, it is stated, the extension of its railroad to the lower end of Willoughby Sandspit.

Oxford, N. C.—Railroad.—H. C. Herndon, president of the Oxford & Coast Line Railroad, referred to in last issue, reports that nothing more has been done as yet than organize the company; no surveys or contracts made.

Point Pleasant, W. Va.—Railroad.—The Point Pleasant & Atlanta Railroad, referred to in last issue, is a proposed road on the south side of Great Kanawha river from Point Pleasant to the mouth of Coal river, a distance of 45 miles. T. L. Brown and J. S. Swann, of Charleston, are interested in the project, and can give particulars.

Savannah, Ga.—Railroad.—Arthur Pew, chief engineer Middle Georgia & Atlantic Railroad, writes as follows: "Have commenced location of line from Savannah towards Eatonton. Grading commenced at Savannah July 9. Work being done by company's force. Will be ready to let contracts for grading within a week or two. Rolling stock, rails, etc., not yet bought, but are ready to buy."

Savannah, Ga.—Street Railway.—The Southern Street Railroad Co., of Savannah, has applied to the legislature for a charter.

Silver Springs, Fla.—Railroad.—The Silver Springs & Western Railroad Co. has been chartered by F. A. Teague, R. L. Anderson and H. L. Anderson to build a railroad a distance of about 60 miles from Silver Springs to Ocala, thence westward to Dunnellon, with a branch to Archer. The capital stock is \$100,000.

Soque, Ga.—Railroad.—A bill has been introduced in the legislature chartering the Soque & Tallulah River Railroad Co., with E. P. Howell, M. C. Kiser and H. L. Cyberson, of Atlanta, as incorporators.

St. John's County, Fla.—Railroad.—The Atlantic & Gulf Railroad Co. of Florida has been chartered to build a railroad about 138 miles long, be-

ginning at a point on the Atlantic coast in St. John's county and running across the State through the counties of St. John's, Clay, possibly Putnam, Bradford, Alachua and Lafayette to the Gulf. The directors for the first year are Alphonso F. Tilden, of New York; James Shears, of Charlotte, N. C.; J. L. Davis, of Lake Providence, La.; Henry B. R. Tilden, of Danbury, N. C., and Joseph Walton, of London. The capital stock is \$2,000,000.

Velasco, Texas—Railroad.—The Velasco Terminal Railway Co. has been chartered by E. J. Wilson, Gustave Wilke, Abner Taylor, G. W. Angle, Frank Caldwell and E. L. Dryer. The company proposes building a railroad from Velasco, through the county of Brazoria, to Arcola Junction, in Fort Bend county, a distance of 40 miles. The capital stock is \$500,000.

West Virginia—Railroad.—Mark M. Pomeroy, Pulitzer Building, New York city, writes: "I have offered to build 175 miles of standard-gauge railroad in West Virginia if certain concessions are made, as they probably will be. If so, I will build the road."

Building Notes.

Albemarle, N. C.—Courthouse.—The courthouse previously reported as to be built by Stanley county will cost about \$10,000. The county clerk can give information.

Albemarle, N. C.—R. A. Brown, of Concord, has, it is reported, been awarded contract for the erection of a brick block in Albemarle.

Alvord, Texas—College.—It is stated that contract for the erection of a college building has been awarded.

Baltimore, Md.—Warehouses.—Roger W. Barron will erect a three-story brick warehouse, and the C. A. Gambrill Manufacturing Co. a two-story iron warehouse.

Baltimore, Md.—Building permits have been granted to Caroline P. Gale for the erection of a two-story brick building; Rudolph Maempel, a two-story brick building; M. Rahterman, a three-story brick building; Greenmount Avenue M. E. Church, a three-story brick parsonage; Michael Kohlerman, a three-story brick building; L. H. Robinson, a three-story brick building; H. Stevens, a two-story brick building; A. A. McDowell, a three-story brick building; Isaac Lees, a two-story brick building, and to J. S. Brady for a two-story iron building.

Baltimore, Md.—Church.—Jacob Peters, of Highlandtown, has contract for the erection of the edifice lately reported for the Canton Congregational Church.

Baltimore, Md.—College.—A building has been purchased and will be remodeled for the Homeopathic College. Levi Z. Condon can give particulars.

Barnesville, Ga.—Depot.—The Central Railroad & Banking Co. of Georgia (office, Savannah) will probably build a depot in Barnesville.

Beattyville, Ky.—Church.—The Presbyterians will erect an edifice. Rev. Dr. Guerrant can give particulars.

Beaumont, Texas—Hotel.—A three-story brick hotel building is reported as under construction by N. Blanchette.

Birmingham, Ala.—J. L. Chalifoux & Co. are reported as to erect a five-story brick building to cost about \$100,000.

Birmingham, Ala.—Theatre.—Frank Huffman is reported as to erect a two-story theatre building.

Blanket, Texas—Hotel.—It is proposed to erect a two-story hotel.

Bluffton, Ala.—It is reported that J. L. Doolittle, of Brunswick, Me., will erect a business block in Bluffton.

Bristol, Tenn.—Masonic Temple.—It is proposed to build the temple for the Masons, lately mentioned, at a cost of \$50,000. J. P. Steffner can give particulars.

Buena Vista, Ga.—J. M. Lowe & Co. and D. M. Hall & Co. will each erect business buildings.

Caldwell, Texas—Jail.—It is stated that Burleson county will erect an \$18,000 jail building in Caldwell. The county clerk can give particulars.

Cameron, W. Va.—School Building.—The erection of a school building is probable.

Catoonsville, Md.—Mr. Brodie is reported as to build 7 residences.

Chapel Hill, N. C.—Hotel.—Efforts are being made to organize a stock company to build a hotel. T. M. Kirkland can give information.

Charleston, S. C.—Public Building.—W. J. Edbrooke, supervising architect, Treasury Department, Washington, D. C., will receive sealed proposals until August 21 for all the labor and materials required for certain miscellaneous repairs to the United States custom-house building in Charleston.

Charleston, W. Va.—College.—The plans of John Fulk have been adopted for the building lately reported as to be erected for the West Virginia Colored Institute. It is to be a two-story brick structure, 62½ x 30 feet, with L 34 feet long,

and bids for construction will be received until August 10. The estimated total cost is \$20,000.

Charlottesville, Va.—Church.—The Latherans intend building a church.

Chattanooga, Tenn.—The Hamilton County Investment Co. has awarded contract to Adams & Schneider for the erection of a three-story brick building to cost \$11,000. S. M. Patton prepared the plans.

Chattanooga, Tenn.—The Mercantile Building & Loan Association has been incorporated.

Cheraw, S. C.—J. H. Rhine, of Chesterfield, has been awarded contract for the erection of a brick store buildings for M. Melton.

Cheraw, S. C.—A branch of the Richmond Building & Loan Association has been organized with J. T. Meehan, president, and D. M. Barrentine, secretary.

Claude, Texas—School Building.—The erection of a school building 40 x 60 feet is contemplated.

Conyers, Ga.—School Building.—W. U. Wallace has secured contract for the erection of the school building lately reported.

Corpus Christi, Texas—Jail.—Gordon & Leub, of San Antonio, have prepared plans for the erection of a jail building for Nueces county, and bids will probably soon be invited for same. The county clerk can be addressed.

Dallas, Texas—Jail.—The Diebold Safe & Lock Co., of St. Louis, Mo., has secured contract at \$24,995 for the erection of the addition to the Dallas county jail building, lately reported. Contract has also been awarded for the remainder of the stone work on the new courthouse to Daniel Morgan at \$61,000.

Dawson, Ga.—School Building.—A two-story building 55 x 100 feet is to be erected for the Georgia Telegraph School. G. B. Rooks can give information.

Dayton, Tenn.—It is stated that V. Gilmore, of Cincinnati, Ohio, will erect a number of buildings in Dayton.

Delta, Md.—Hotel.—A hotel is reported as to be built.

Elkhart, Texas—Hotel.—J. H. Burke, general manager of the Elkhart Mineral Wells Co., lately noted, writes that his company contemplates building a \$30,000 hotel and will invest \$50,000 within the next 12 months, including \$10,000 already expended in erecting a hotel.

Ellijay, Ga.—Courthouse.—Gilmer county will probably build a courthouse in Ellijay. The county clerk can give information.

El Paso, Texas.—W. A. Morehouse, lately referred to, will build either a three or four-story pressed brick building, 47½ x 66½ feet, for stores and offices.

El Paso, Texas—City Hall, &c.—The building of a city hall and market-house is talked of. The mayor can give particulars.

Fairfield, Texas—Courthouse.—The plans of the J. B. Legg Architectural Co., of Dallas, have been adopted for the erection of the \$25,000 courthouse previously reported. The contract for construction is to be awarded about August 10. The county clerk can be addressed.

Fort Gaines, Ga.—Church.—A \$5,000 edifice is to be built. J. E. Paullin can give particulars.

Fort Gaines, Ga.—S. Sternberg will erect 3 brick stores, as stated in last issue; W. A. McAllister is building 4; N. H. McLendon, 1; T. L. Farmer, 2, and D. C. Addams, 1.

Frostburg, Md.—Depot.—E. J. Fredlock, of Piedmont, W. Va., has contract for the erection of a depot for the Cumberland & Pennsylvania Railroad Co. (office, Baltimore.)

Gadsden, Ala.—Church.—J. M. Chadwick has secured contract at \$13,495.75 for the erection of the edifice lately reported for the Methodists.

Gallatin, Tenn.—College.—The college building lately reported will probably be built by the Knights of Pythias at a cost of \$50,000.

Goliad, Texas—School Building.—Bids will be received until August 15 for erecting the two-story brick school building lately mentioned. The estimated cost is \$7,000 to \$8,000. John W. Cole, mayor, can be addressed.

Grenada, Miss.—Hall Building.—R. G. Nicoll is preparing plans for the erection of a two-story building for the Masons and the Independent Order of Odd Fellows.

Grenada, Miss.—Hotels.—A company organized by T. P. Gibbs, E. F. Gibbs, J. E. Hughes and others is privileged to build hotels.

Hackberry, Texas—School Building.—A school building will probably be erected.

Hamilton, Ala.—School Building.—The erection of a school building is contemplated.

Harriman, Tenn.—Hall Building.—The Women's Christian Temperance Union will erect an \$8,000 hall building.

Harriman, Tenn.—Church.—The members of the Trenton Street Baptist Church will soon commence the erection of the brick edifice mentioned in last issue. It is to have steam-heating apparatus and cost \$6,000. J. B. Stevens can be addressed.

Hot Springs, Ark.—Hotel.—A stock company

will probably be formed to erect a three-story hotel on Whittington Peak. Moore & Jagers can give information.

Houston, Texas.—Iron Building.—The Houston Rapid Transit Co., H. D. T. Wilson, general manager, will receive bids for erecting complete an L-shaped iron building, two stories, 18 and 15 feet high, each wing 50x150 feet.

Jackson, Miss.—College.—As stated in last issue, the plans of Hunt & Lamm, of Chattanooga, Tenn., have been adopted for the erection of buildings for Millsaps College.

Johnson City, Tenn.—School Building.—A. R. Wing has secured contract for the foundation of the school building recently reported.

Kershaw, S. C.—Hotel.—A \$5,000 hotel will probably be built.

Knoxville, Tenn.—School Building.—The erection of a school building in the tenth ward is discussed.

Knoxville, Tenn.—Depot.—The Knoxville, Cumberland Gap & Louisville Railroad Co. contemplates, it is said, the erection of a depot in Knoxville.

Lafayette, La.—Bank Building.—The People's State Bank contemplates erecting a \$6,000 building.

Lenoir City, Tenn.—School Buildings.—A school building is to be erected. Samuel Marfield can give information.

Lexington, Ky.—Club Building.—Caldwell & Galvin have prepared plans for the erection of a three-story building 44x117 feet for the Kenton Club to cost about \$25,000.

Lott, Texas.—Church.—The Baptists will probably build a church. Rev. B. H. Carroll, of Waco, can give particulars.

Macon, Ga.—The American Loan & Investment Co. contemplates erecting about 40 residences at Bellevue.

Manchester, Va.—School Building.—The erection of a new school building is under consideration. The mayor can give particulars.

Meadow View, Va.—Church.—The Lutherans contemplate building an edifice.

Memphis, Tenn.—Engine house.—The erection of an engine house is contemplated.

Middlesborough, Ky.—Arthur West & Co., mentioned in last issue, are, in conjunction with Virginia parties, building a block 75x60 feet to cost \$7,500. They are also erecting a three-story brick building for N. A. Earle to cost \$7,000, and have about completed arrangements to erect two more buildings for non-residents.

Middlesborough, Ky.—A branch of the Covenant Building & Loan Association has been organized with H. H. Sneed, president, and W. M. Acuff, secretary.

Midland, Ga.—Church.—The members of the Methodist Episcopal Church contemplate building an edifice. A. S. Jenkins can give particulars.

Mineral City, Va.—Hall.—The Independent Order of Odd Fellows are reported as to erect a building.

Moultrieville, S. C.—Robert McCarrell has secured contract for the erection of the \$6,000 edifice lately reported as to be built by the Episcopalians.

New London, N. C.—Hotel.—It is stated that contract has been let for the erection of a large hotel. R. J. Ross can give information.

New Orleans, La.—Hotel.—William Blake and others, in an application to the city council for certain privileges, state that they propose building a hotel to accommodate more than 1,000 guests.

New Orleans, La.—Club Building.—The building to be erected for the Metropolitan Club, as stated in last issue, will comprise a gymnasium, natatorium, baths, etc., and will cost about \$15,000. Duval & Favrot prepared the plans.

New Orleans, La.—Club Building.—Contract has been awarded for the erection of a \$5,300 building for the New Orleans Bicycle Club. E. A. Shields can give information.

New Orleans, La.—Gymnasium.—The Young Men's Catholic Club contemplates erecting a gymnasium building.

Newport News, Va.—Courthouse and Jail.—It is stated that G. H. Evans has secured contract for the erection of the courthouse and jail building previously reported for Warwick county. G. C. Moser, of Norfolk, prepared the plans.

Norfolk, Va.—Warehouse.—The enlargement of the warehouse of the Old Dominion Steamship Co., noted in last issue, is being done by day labor and will cost about \$7,000.

Norfolk, Va.—Hotel.—It is reported that a \$75,000 hotel will be built on Willoughby Spit.

Norton, Va.—Hotel.—The hotel lately reported as to be built at a cost of about \$75,000 or \$80,000 is for the Norton Land Improvement Co. G. W. Lambert is the contractor.

Ocala, Fla.—Depot.—The depot recently reported as to be built by the Florida Central & Peninsular Railroad Co. (office, Jacksonville) is to be 100x40 feet and cost about \$10,000.

Orlando, Fla.—Hotel.—The erection of a large hotel is said to be in contemplation.

Parkland, Ky.—Church.—Contract has been awarded for the erection of the edifice for the Methodist Episcopal Church, mentioned in last issue, at \$11,000. S. E. Brown can give particulars.

Parkland, Ky.—Church.—The Baptists contemplate building an edifice.

Parkland, Ky.—School Building.—A school building will be erected. The mayor can give information.

Piedmont, Ala.—Eubanks & Jones have secured contract for the erection of a two-story building 25x75 feet for Harbin & Lawrence. A. Kerschsky will also erect a business building.

Pine Bluff, Ark.—Jail.—The contract awarded to the Champion Iron Co., of Kenton, Ohio, for the erection of a jail building for Jefferson county has been declared void, and W. F. West will receive new bids for the erection of same.

Radford, Va.—Hotel.—Lucas & Sheretz are erecting the hotel lately mentioned as being built by a Mr. Sheretz. It is to be a brick structure, three stories, 50x65 feet, and cost \$7,000.

[CONTINUED ON PAGE 44]

Southern Financial News.

NEW BANKS.

Alexandria, La.—A new bank is being organized with a capital stock of \$50,000.

Atlanta, Ga.—A bill has been introduced in the legislature incorporating the Northeast Georgia Loan & Banking Co.

Atlanta, Ga.—The Maddox-Rucker Banking Co., reported in last issue as applying to the legislature for a charter, is to succeed the firm of Maddox, Rucker & Co. The capital stock is to be \$150,000.

Baltimore, Md.—The Union Park Savings & Loan Association has been chartered by J. B. Berger, E. N. Hofmann, N. T. Moale and others. The capital stock is \$30,000.

Cochran, Ga.—A bill has been introduced in the legislature incorporating the Bank of Cochran.

Corpus Christi, Texas.—E. A. McCampbell, assignee for P. Doddridge & Co., reports that he is paying the first distribution of 25 per cent., and arrangements are in progress to reorganize the bank, which he thinks will be successful.

DeWitt, Ark.—The DeWitt Bank, recently reported as organized with C. K. Leslie, cashier, is a branch of the Arkansas County Banking Co. of Stuttgart.

Houston, Texas.—A Dade City, (Fla.) party has, it is stated, submitted a proposition to the Commercial Club to furnish \$80,000 of the capital for a \$100,000 national bank, provided the remainder is subscribed in Houston.

Huntington, W. Va.—The Commercial National Bank, of Huntington, mentioned in last issue, has been authorized to commence business. I. W. Beggs is president, and W. B. Prickett, cashier. The capital stock is \$100,000.

Louisville, Ga.—A bill has been introduced in the legislature chartering the Bank of Louisville.

Lafayette, La.—The State bank lately referred to has been organized by J. G. Parkerson, N. P. Moss, G. B. Petz and others as the People's State Bank of Lafayette. The capital stock is \$25,000.

Macon, Ga.—The Commercial Bank of Macon has applied to the legislature for a charter. The incorporators are W. M. Gordon, W. R. Cox and Henry Horne. The capital stock is \$200,000.

Nashville, Tenn.—The capital stock of the Union Bank & Trust Co., lately reported as commencing business, is \$100,000.

Newport News, Va.—A State bank has been organized with George B. West, president, and W. B. Vest, cashier.

Pennington's Gap (P. O. Han), Va.—H. J. Morgan is reported as to establish a bank.

Pell City, Ala.—The organization of a State bank, with D. W. Waite, of Easonville, as president, and Theodore Jones, of Cropwell, vice-president, is proposed.

Rome, Ga.—A bill incorporating the Rome Savings & Trust Co. has been introduced in the legislature.

Smithville, Ga.—The Bank of Smithville will, it is stated, be organized this fall.

Summerville, Ga.—The Bank of Commerce, lately reported as organized with C. W. Smith, president, has applied to the legislature for a charter. The capital stock is \$30,000.

Thomson, Ga.—The bill which passed the legislature incorporating the Bank of Thomson, lately mentioned, has been approved by the governor and become a law.

Walterboro, S. C.—The Walterboro Loan & Savings Bank has been chartered by J. F. Lucas, J. R. Stokes, A. C. Shaffer and others. The capital stock is \$25,000.

Acworth, Ga.—The Acworth Land Co. has, it is stated, declared a dividend of 50 per cent.

Anniston, Ala.—A. P. Agee has, it is announced,

been appointed receiver of the Anniston Savings & Safe Deposit Co.

Asheville, N. C.—The board of aldermen will receive bids until August 15 for the \$640,000 of improvement bonds previously mentioned. They are of the denomination of \$500 each, bear interest at 5 per cent. and mature 20 years from July 1, 1891, except bonds for school purposes, amounting to \$20,000, which run 30 years.

Augusta, Ga.—The city will probably petition the legislature for authority to issue \$300,000 bonds to be expended in protecting the city from freshets by building dykes or some other means. The mayor can give particulars.

Birmingham, Ala.—New York city parties have, it is stated, purchased \$200,000 5½ per cent. city improvement bonds.

Bristol, Tenn.—It is contemplated to issue bonds to the amount of \$50,000 for building a Masonic temple. J. P. Steffner can give particulars.

Brunswick, Ga.—J. H. Clark, J. S. Wright, F. E. Cunningham and others are the incorporators of the Glynn Title & Loan Co., reported in last issue as applying to the legislature for a charter.

Cordele, Ga.—The Mutual Loan & Trust Co. has been organized and applied for a charter.

Dallas, Texas.—The Northwestern Life Insurance Co. has, it is reported, purchased \$100,000 of Dallas county bonds.

Dallas, Texas.—The Dallas Investment Co. has been chartered by F. M. Cockrell, J. H. Gaston and F. Rowley. The capital stock is \$100,000.

Dallas, Texas.—The Dallas Mortgage Co. is reported as chartered with a capital stock of \$100,000.

Ellijay, Ga.—A bill has been introduced in the legislature authorizing Gilmer county to issue bonds to build a courthouse. The county clerk can give particulars.

Fort Payne, Ala.—The Fort Payne Basket & Package Co. will meet August 22 to consider the issuance of \$12,000 of bonds and the canceling of \$20,000 of treasury stock.

Fort Payne, Ala.—As lately stated, the city disposed of \$30,000 6 per cent. bonds at 94.

Greensboro, N. C.—The city has decided by popular vote to issue the \$30,000 of bonds lately mentioned. The mayor can give particulars.

King's Mountain, N. C.—I. W. Garrett will receive bids for \$10,000 of 6 per cent. 10-year bonds. The privilege of redeeming one-tenth of the entire sum annually is reserved.

Louisville, Ky.—It is announced that all of the 48,000 shares of new stock of the Louisville & Nashville Railroad Co., offered for subscription at 70, have been taken.

Marion, S. C.—The Marion Banking & Industrial Co. will meet August 10 to consider the issuance of bonds.

Richmond, Va.—The Life Insurance Co. of Virginia has declared a semi-annual dividend of 5 per cent.

Savannah, Ga.—The Commercial Loan & Protective Association has been chartered by Andrew Hanley, W. I. O'Brien, Otto Seiler and others. The capital stock is \$25,000.

Titusville, Fla.—The Indian River State Bank has declared a semi-annual dividend of 5 per cent.

Uniontown, Ala.—The town is offering for sale the \$25,000 6 per cent. water works bonds previously noted. J. A. Hudson can be addressed.

Foreign Exchange Quotations.

ALEXANDER BROWN & SONS.

BALTIMORE, August 5, 1891.

Sterling.—Market very heavy.	
Selling.	Commercial.
60 days.... 48½%	48½% @ 48½%
3 days.... 48½%	Latter for banks.
Francs.	
Selling.	Commercial.
60 days.... \$20	520½%
3 days.... \$17½	
Reichmarks.	
Selling.	Commercial.
60 days.... 95½	60 days.... 94½
3 days.... 96	3 days.... 95½
Guilders.	
Selling.	Commercial.
60 days.... 40½	60 days.... 40 1-16
3 days.... 40½	3 days.... 40½

Baltimore Stock Exchange Quotations.

Reported by ALEXANDER BROWN & SONS, Bankers, Baltimore.

BALTIMORE, August 5, 1891.

	BID.	ASKED.
Virginia 3-4 10-40's.....	33	64
Virginia 3's, new.....	63½	64
Virginia Consul Coupons, N. F.	20	25
Virginia 10-40 Coupons, N. F.	21	25
N. Carolina 4's.....	97½	98½
N. Carolina 6's.....	125	
Ga. Car. & N. S's.....	100½	
Wil. & Wel. Gold 7's	111½	
Wil. & Wel. 5's.....	100½	
Col. & Green, 1st 6's.....	101	
Va. Midland, 2d 6's.....	116	
Va. Midland, 5th 5's.....	100½	
Charlotte, C. & Aug. 2d 7's.....	118	
Ga. Pacific 1st 6's.....	101½	
Ga. Pacific 2d.....	61½	
West. Nor. Car. Cons'd 6's, gld.....	98½	
Cape Fear & Y. Valley 6's, A.....	99	
Cape Fear & Y. Valley 6's, B.....	99½	

SOUTHERN LOAN & BOND INVESTMENTS.

[Under this head the MANUFACTURERS' RECORD will publish announcements, not exceeding ONE INCH, four times free of charge. Only offerings of real estate loans and municipal, county and other bonds, accompanied by specific statement of amount, time, rate of interest and security, will receive free insertions in this column.]

\$7,000 COUNTY BONDS FOR SALE. These bonds constitute the total issue of Greer County, Texas, 20 years to run; redeemable in two years; interest 6½. Present county indebtedness \$20,453.05. Assessment roll for 1891 shows \$1,000,000 worth of assessable property. For particulars address ROBERT F. HILL, Attorney at Law, Room 80 At antic Building, Washington, D. C.

WANTED \$8,000 FOR FROM THREE to five years, at 7½; interest payable semi-annually; security, first mortgage on real estate worth \$26,000, and which is producing \$1,500 income and increasing annually. Money wanted to take up loan at a higher rate by large company. Address BOX 17, Winter Park, Fla.

WANTED \$25,000 AT 7½ FOR FIVE years, secured by mortgage on cotton plantation of 1,100 acres, 800 acres in cultivation, with 20 tenants' houses. Annual rent \$4,500. Appraised value \$4,000. Also on 800 acres timber land, value \$1,500, and 30 town lots, with buildings thereon. Value \$7,000. For further particulars address W. B. FADGETT, Batesville, Ark.

WANTED \$5,000 FOR TWO TO THREE years; 8½ interest. This money is wanted to purchase improved machinery for a manu- facturing plant. Security given on the plant and 25% of the gross product. The gross product of the plant is placed at \$100 per day for a safe estimate. Additional security on \$3,000 worth of choice unincumbered town property. For full particulars address J. E. BOREN, St. Andrews Bay, Fla.

WANTED \$10,000 OR \$12,000 FOR ONE year, secured by first mortgage on Real Estate and Planing Mills in North Carolina. Investigation will show the security to be ample. Address "LUMBER," care Manufacturers' Record.

\$3,000.

A promotor in a sound Virginia enterprise will sell one-half his stock at cost. Company owns property which is very valuable and does not owe a cent. No complications of any kind. This is a first-class opportunity to make money without the usual risks attending such schemes. Good reasons for selling. Refer to Manufacturers' Record. Amount required, \$3,000.

Address

"STOCK,"

Lock Box 134,

WASHINGTON, D. C.

SOUTHERN INFORMATION BUREAU.

F. S. GRIFFITH, Genl. Manager.

Acts as a RELIABLE and RESPONSIBLE AGENT in inducing Capitalists and Manufacturers to locate South, and as an Advertising, Mail and Bond Placing Agent for any LEGITIMATE interest. Highest references.

541 EXCHANGE BUILDING,

STATE STREET,

BOSTON, MASS.

NOTICE.

The city of Asheville has for sale its bonds to the amount of \$640,000. All issued by virtue of the two acts of the Legislature of the State of North Carolina, passed at its session of 1891, and by virtue of the election held in said city in pursuance of said acts at which the issuing of said bonds was ratified and authorized by a majority of the qualified voters of said city. The said bonds are as follows: \$500,000 are the "Street Improvement Bonds" described in said acts, \$100,000 are the "Sewer Bonds" therein described, and \$200,000 are the "Market House Bonds" therein described, and \$200,000 are the "School Bonds" therein described. All said bonds and the coupons attached are payable at the office of the Atlantic Trust Company of New York City; all said bonds are in denominations of \$500 each; all bear interest at 5½, payable semi-annually on the 1st days of January and July of each year hereafter, and all mature at the end of twenty (20) years from the 1st day of July, 1891, except the \$200,000 of "School Bonds," which mature at the end of thirty (30) years from said date. Said bonds will be sold in such quantities as the Board of Aldermen of said city may hereafter designate. Correspondence looking to their purchase is requested. Bids will be received up to the 15th day of August, 1891, but none less than par can be entertained. The privilege of rejecting any and all bids without assigning any reason is expressly reserved. This the 7th day of July, 1891.

By order of the Board of Aldermen of the City of Asheville.

W. R. YOUNG,

Clerk.

To SOUTHERN corporations, bankers and brokers: The MANUFACTURERS' RECORD will give investment offerings four insertions free, announcements not to exceed one inch in space.

**JOHN L. WILLIAMS & SON,
BANKERS.**

RICHMOND, VA.
Our Manual of Investments for 1890, the largest work of the kind published by any banking house in America, (406 pages, octavo, cloth,) may be had without charge by clients, correspondents and those expecting to do business with us; by others at \$2 per copy.

**Richmond Stock Exchange
Quotations.**

Reported by JOHN L. WILLIAMS & SON, Bankers,
Richmond.

RICHMOND, VA., August 4, 1891.

	BID.	ASKED.
North Carolina 4's, 1910.....	97 1/2	98 1/2
North Carolina 6's, 1910.....	123 1/2	124 1/2
Virginia New 3's, 1912.....	64	64 1/2
Danville 5's.....	101	101 1/2
Lynchburg, Va., 5's, 1915.....	102	102 1/2
Petersburg, Va., 5's, 1918.....	104	104 1/2
Norfolk, Va., 5's, 1911.....	104	104 1/2
Richmond, Va., 5's, 1912.....	106	106 1/2
Atlanta & Charlotte Ry., 1st 7's, 1907.....	116 1/2	117 1/2
Atlanta & Charlotte Gt'd 6's, 1900.....	102 1/2	103 1/2
Char., Col. & Aug. R.R. Gen. 6's, 1912.....	103	103 1/2
Georgia Pacific Ry. 1st 6's, 1912.....	101	101 1/2
Georgia Pacific 2d 5's, 1913.....	60	60 1/2
Ga. Pacific Income, 5's.....	16	16 1/2
Petersburg Railroad Stock.....	80	80 1/2
Petersburg Railroad Class A 5's, 1916.....	104	104 1/2
Petersburg Railroad Class B 6's, 1916.....	104	104 1/2
Rich. & Danville R. R. Gold 6's, 1915.....	107	107 1/2
West. N. Car. R. R. Gt'd 6's, 1914.....	97 1/2	98 1/2
West. N. Car. 1st 6's, C. 1914.....	93 1/2	94 1/2
Northwestern N. Car. R. R. 1st 6's.....	96	96 1/2
Atlanta & Charlotte R. R. Stock.....	93	93 1/2
North Carolina Railroad Stock.....	100	100 1/2
R. F. & Pot. R.R. Div'd Obligations.....	110	110 1/2
Virginia Midland Railway Stock.....	80	80 1/2
Sloss Iron & Steel Co. Stock.....	80	80 1/2
Sloss Iron & Steel Co. 1st 6's, 1917.....	80	80 1/2
Sloss Iron & Steel Co. 2d 6's, 1918.....	80	80 1/2

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dividuals (by agreement). Railroad,
Municipal & other Loans Negotiated.

BUY AND SELL BILLS OF EXCHANGE

on Great Britain and Ireland, France, Germany,
Holland, British West Indies and other foreign
points.

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IN STERLING, available in any part of the
world; and IN DOLLARS, for use in this
country, Canada, Mexico, the West Indies and
South America.

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of Money.**

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County Bonds Bought and Sold.

Make Collections of Drafts, Notes, Dividends
and Coupons, throughout the United States and
Canada. Buy and Sell Bills of Exchange.

Receive Deposits Subject to Check at Sight.
Allow Interest on Daily Balances.

Accounts of Banks, Bankers, Corporations and
Individuals Solicited.

Act as Fiscal Agents for States, Cities, Counties
and Corporations.

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highest English connections, to
negotiate the sale of American manu-
facturing and other properties in
England.

**Fine Office Furniture
and Folding Beds.**
Brass and Wire Work. 215 Wabash Av.
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WANTS.

FERTILIZERS.—Situation wanted as SUPER-
INTENDENT OF FERTILIZER MANU-
FACTORY. Thoroughly experienced in Sul-
phuric Acid making, and all the different
branches of Acid Phosphate and Guano Manipu-
lations, and operation of Plant. References
first-class. Address "R. W. S.," care Manufac-
turers' Record.

WANTED.—Situation as Overseer of Weav-
ing by man 32 years of age, American,
14 considered one of the best managers of pulp
in New England; wants to locate South. Mil-
lmen that want a man that understands the busi-
ness and can give high recommendations from
some of the best millmen in New England ad-
dress "WEAVER," care Manufacturers' Record.

CAPITAL WANTED.

The Greensboro Cotton Mills has a new brick
building and 14 acres of land on railroad. Want
capitalists to furnish machinery and take in
stock. Splendid offer. Address

H. J. ELAM, Sec'y and Treasurer,
Greensboro, N. C.

WANTED.**Mineral Property and Town Site.**

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of well-timbered mineral land, with iron, coal
and time in cheap juxtaposition, and suitable for
a great manufacturing center.

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and Southwest, having first-class American and
European connections and some means, wishes
to identify himself with and take partial or
entire charge of a sound enterprise. State full
particulars. Address

"K. F. G.,"

Care Manufacturers' Record.

PROPOSALS.

PROPOSALS FOR \$25,000 OF BONDS.

CONCORD, N. C., July 22, 1891.
Sealed bids will be received by the Board of
Commissioners for the town of Concord, North
Carolina, until 12 M. Saturday, the 22nd day of
August, 1891, for the purchase of the whole or
either class of the following bonds, viz: Street
Improvement Class, consisting of twenty-two
(22) bonds; Graded School Class, consisting of
seven (7) bonds; Funding Class, consisting of
twenty (20) bonds. The bonds of each class are
in denominations of five hundred dollars (\$500)
each, mature in 30 years, with 6% per annum,
payable semi-annually, dated July 1, 1891, cou-
pons to be presented at Concord National Bank
or at the office of the city clerk on the 1st day of
January and July of each year. The board re-
serves the right to reject any and all bids. W. G.
MEANS, W. R. ODELL, C. McDONALD, Com.

SEALED PROPOSALS will be received at the
office of the Supervising Architect, Treasury
Department, Washington, D. C., until 2 o'clock
P. M., on the 18th day of August, 1891, for fur-
nishing all the labor and materials required and
fixing in place, complete, the extension of the
Low-temperature, Hot-water Heating and Ventil-
ating Apparatus, Re-constructing old Apparatus
in Basement, &c., and furnishing and placing a
High-pressure Steam Boiler for the United States
Courthouse and Postoffice Building at Atlanta,
Ga., in accordance with the drawings and specifi-
cation, copies of which may be had at this office
or the office of the Superintendent at
Atlanta, Ga. Each bid must be accompanied by
a certified check for a sum not less than 2% of
the amount of the proposal. The Department
will reject all bids received after the time herein
stated for opening the same, also bids which do
not comply strictly with all the requirements of
this invitation. Proposals must be enclosed in
envelopes, sealed and marked "Proposal for
Extension of Low-temperature, Hot-water Heat-
ing and Ventilating Apparatus, Re-constructing
old Apparatus in Basement, &c., and Furnishing
and Placing a High-pressure Steam Boiler for the
U. S. Courthouse and Postoffice Building at At-
lanta, Ga.," and addressed to W. J. ED-
BROOKE, Supervising Architect. July 27, 1891.

SEALED PROPOSALS will be received at the
office of the Supervising Architect, Treasury
Department, Washington, D. C., until 2 o'clock P.
M. on the 20th day of August, for all the labor
and materials required or furnishing and
putting in place, complete, the Low-pressure,
Return-circulation, Steam-heating and Ventil-
ating Apparatus, for the United States Postoffice
Building at Bridgeport, Conn., in accordance
with the drawings and specification, copies of
which may be had on application at this office or
the office of the Superintendent at Bridgeport,
Conn. Each bid must be accompanied by a
certified check for a sum not less than 2% of
the amount of proposal. The Department will
reject all bids received after the time herein stated
for opening the same, also bids which do not
comply strictly with all the requirements of this
invitation. Proposals must be enclosed in en-
velopes, sealed and marked "Proposal for the
Low-pressure, Return-circulation Steam heating
and Ventilating Apparatus for the U. S. Postoffice
Building at Bridgeport, Conn., and addressed to
W. J. ED BROOKE, Supervising Architect.
July 27, 1891.

GOLD MINE.

A loan of \$20,000 wanted to put the neces-
sary machinery on one of the richest free milling
quartz mines in California. The money will be
refunded in one year. As a bonus, will give one-
quarter of the capital stock of the Co. This is a
bonanza. No Brokers.

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Stocks and Bonds Bought and Sold on Commission. Special attention given to Municipal and other Invest-
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Manufacturing Plants Wanted.

I would be glad to correspond with parties who wish to move Manufacturing Plants
already established, or to establish new plants in the rapidly developing iron and coal
regions of the South. I can offer liberal inducements in the way of free sites, subscrip-
tion to capital stock, or secured loans at low rates of interest, with choice of location.
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Handsome Sites for Residences. Investments Made
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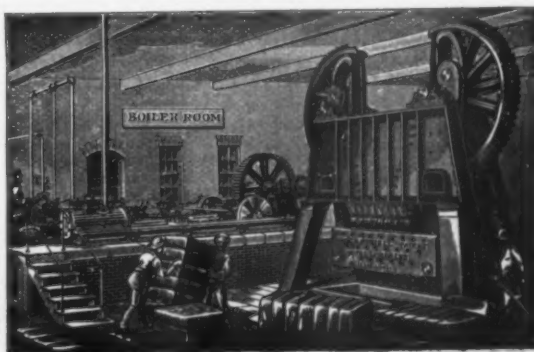
Will sell, exchange for salable merchandise, mortgage for necessary funds for working expenses,
or make working arrangement on shares, commission or royalty, 300 acres of the best phosphate
land in Florida situated on a navigable river and showing by analysis from 72 to 84 per centum of
phosphate of lime 13 pits sunk from 7 to 35 feet fall to reach the bottom of the bed.

Also a gold property in North Carolina of 300 acres, well watered and timbered land, on which
are 11 fissure veins from one to four feet wide and each about a mile long, ore assaying \$33 per ton.
Will be sold outright, mortgaged for necessary working expenses, or arrangement will be made
with suitable parties to work on shares, commissions, royalty or otherwise.

On hand for sale, a choice selection of properties, consisting of agricultural, mineral and timber
lands; gold, silver, iron, coal and mica mines; breweries, mills, factories, textile and other manu-
factories; developed, undeveloped and partly developed industrial enterprises, and county, municipal
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Is sold on the following **GUARANTEE.**



DENSITY Obtained,
Equal to Any,
COST of Plant,
Less than Any,
EXPENSE of Running,
Half of Any
First-Class Compress.

Correspondence solicited.

**THE CAMPBELL
Cotton Compress Co.,**

109, 111, 113 and 115
E. FRONT ST.,
CINCINNATI, O.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Alico—Saw Mill.—The Peters Lumber Co. has, it is stated, increased the capacity of its saw mill.

Birmingham—Packing-house.—The Tennessee Packing Co. has, it is reported, established a branch packing-house in Birmingham under the management of Phillips, Orr & Ungerman.

Bluffton—Rolling Mill.—A stock company is reported as being organized in New York for the purpose of establishing a rolling mill at Bluffton.

Bluffton—Soap Factory.—A Philadelphia (Pa.) party is in correspondence with W. M. Brewer relative to the establishment of a soap factory in Bluffton.

Bridgeport—Knitting Mills.—Edwin Grote, of Hudson, N. Y., and Mr. Conde, of Schenectady, N. Y., have, it is reported, made a proposition to remove their Schenectady knitting mills to Bridgeport.

Cotton Valley—Grist Mill and Gin.—T. W. & D. P. Fort will, it is reported, erect a cotton gin and grist mill.

Florence—Renovating Factory.—B. Martin has, it is reported, established a feather-renovating factory.

Hartselle—Gas and Oil Wells.—The North Alabama Standard Oil & Gas Co. has been organized with J. E. Peck, president, and T. L. Simpson, secretary. The capital stock is \$200,000.

New Decatur—Saw and Planing Mill.—Marion Graber has added a saw mill to his planing mill, as recently reported (under Decatur).

Oxanua—Soap Factory.—A. W. Geer & Co. have, it is reported, let contract for the erection of a soap factory with daily capacity of 1,000 pounds.

Sheffield—Stone Quarries.—The T. L. Fossick Co. will increase its capital stock, as stated last week. The purpose of the increase is to enlarge quarrying plant and put in new machinery.*

West Greene—Cotton Gin.—W. C. Mayes and S. W. Strait are reported as to erect a cotton gin.

Woodlawn—New Town.—J. B. Ware and B. A. Stewart have incorporated the Como City Land Co. for the purpose of building a new town near Woodlawn to be called "Como City."

ARKANSAS.

Camden—Canning Factory.—J. T. McMahon is endeavoring to organize a company to erect the canning factory recently mentioned.

Gavin—Saw Mill.—N. A. Mott & Co. have purchased and will operate the M. W. Beardsley saw mill, as reported recently.

Little Rock—Flour Mill.—The parties recently reported as to rebuild and operate the Eisenmeyer Flour Mill, etc., have incorporated for that purpose the Little Rock Mill & Elevator Co. with George Reichardt as president; F. W. Brockschmidt, vice-president, and E. H. Brockschmidt, secretary. The capital stock is \$50,000.

Paragould—Gas and Oil Wells.—The stock company lately mentioned as having been organized for the purpose of sinking gas wells is known as the Paragould Oil, Gas & Water Co., with a capital stock of \$300,000.

Pine Bluff—Ice Factory.—A \$10,000 stock company has, it is reported, been organized for the purpose of erecting an ice factory with a daily capacity of 10 tons.

FLORIDA.

Hostwick—Lumber Mill, etc.—Peter Price, I. S. Coghlan, P. L. Allen and others have incorporated the Hostwick Lumber Co. to erect a saw mill, to

manufacture lumber, etc. The capital stock is \$25,000.

Chipley—Turpentine Still.—W. H. Page, of Hazelhurst, Ga., is reported as to establish a turpentine still at Chipley.

Buffalo Bluff—Mill.—Godfrey & Hodges are reported as to establish a new mill.

Fernandina—Saw Mill.—W. W. Cummer & Sons, of Cadillac, Mich., are investigating with a view of establishing a saw mill at Fernandina.

Floral City—Phosphate Mines.—Ohio and Kentucky capitalists have, it is reported, purchased 1,230 acres of phosphate land in Citrus county from W. M. Brooks and J. M. Baker, and will develop same.

Jacksonville—Mineral and Timber Lands.—Adolph Pluemer, J. W. Johnson and W. H. Jones have incorporated the Fidelity Investment Co. to purchase and improve mineral and timber land. The capital stock is \$100,000.

Key West—Ice Factory.—J. R. Scott, of Waukegan, Ill., is reported as to establish an ice factory at Key West.

Kissimmee—Mill.—E. J. Verbeck is reported as putting new machinery in King's Mill.

Lacoochee—Phosphate Mines.—The Lacoochee Phosphate Co. has been organized with A. J. Phares, Sr., president; T. W. Spicer, vice-president, and C. M. Nicholson, secretary, to develop 40 acres of phosphate land at Lacoochee. The capital stock is \$50,000.

Marianna—Lumber Mill.—A lumber mill is reported as being erected.

Marianna—Saw Mill.—The Chipola Lumber Co. has been incorporated with a capital stock of \$100,000 and is reported as erecting a saw mill.

Ocala—Rice Mill.—W. P. Russell, of Charleston, S. C., is corresponding with J. C. Chambers relative to the establishment of a 40,000 rice mill in Ocala.

Ocala—Phosphate Mines.—B. F. Jackson, H. L. Anderson, J. A. Ammons and others have incorporated the Phoenix Phosphate Co. with a capital stock of \$800,000.

Orlando—Phosphate Mines and Works.—The Standard Pebble Phosphate Co., recently reported as incorporated, has for its president J. H. Tabutt, of Maysville, Ky.; for vice-president, R. E. Rose, of Kissimmee, and for secretary, J. N. Bradshaw, of Orlando. The company has 13,000 acres of phosphate land in Polk county which it will develop, and erect phosphate works of 400 tons daily capacity; capital stock, \$500,000; capital paid in, \$350,000.

Orlando—Sugar Factory, Land Improvement, etc.—The San Sebastian Sugar, Land & Improvement Co., lately reported as organized to operate a tropical farm on 115,000 acres of muck land, etc., has been incorporated. The company will also cultivate sugar-cane and manufacture sugar.

Palatka—Fertilizer Factory.—It is stated that a party has made the city a proposition for the erection of a \$60,000 fertilizer factory.

Palatka—Box Factory.—M. H. Dalton will start an orange-box factory, as reported recently.*

Panasoffkee—Shingle Mill, etc.—The Wekiva Shingle Mill is reported as putting in new machinery for cutting veneering for orange boxes and making crates, fruit baskets, etc.

St. Augustine—Basket, &c., Factory.—M. R. Andrews, of Moultrie, and F. Mitchell, of New Augustine, will, it is reported, establish a factory for the manufacture of grape baskets, posts for grape vines, shingles and lumber at St. Augustine.

St. Augustine—Tannery, etc.—It is reported that the Alachua Tanning & Land Improvement Co. has been organized for the purpose of tanning leather and improving land in Alachua county.

Tampa—Phosphate Mines and Works.—G. A. Hanson, mentioned in our last issue, has secured the right to mine phosphate in Lake Hancock, and is desirous of organizing a company to erect a plant. This lake contains about 5,000 acres of land.*

Tampa—Cigar Factory.—Fernandez & Saxby are reported as to start a cigar factory in Tampa.

Wellborne—Cotton Gin.—B. J. Worrell is reported as erecting a cotton gin.

GEORGIA.

Cedartown—Iron Furnaces, Mines, &c.—W. F. Turner, R. A. Adams, J. L. Gross and others have incorporated the Hematite Iron & Mining Co. for the purpose of mining iron ore and other minerals, erecting iron furnaces, etc. The capital stock is \$10,000.

Cedartown—Woodworking Factory.—Thomas O. L. of Philadelphia, Pa., has, it is reported, contracted with the Cedartown Land Improvement Co. to remove his fancy woodworking factory to Cedartown.

East Rome (P. O. Rome)—Electric-light and Gas Plant.—The city council has signed contract with the Rome Gas & Electric Light Co. granting it privilege to construct gas plant and electric-light plant, etc.

Fort Gaines—Cottonseed-oil Mill and Fertilizer Factory.—The Farmers & Merchants' Oil & Guano Co. has been incorporated for the purpose of establishing a fertilizer factory and cottonseed-oil mill.

Gordon—Chair, Excelsior and Mattress Factory.—The Gordon Mattress Co. has put in excelsior machinery, as reported last week, and expects to soon put in chair machinery.

Griffin—Shirt Factory.—C. S. Chattuc & Son have, it is reported, let contract for the erection of a shirt factory.

Griffin—Foundry and Machine Shop, &c.—M. F. Morris will erect the iron foundry and machine shop mentioned last week, and intends adding buggy and wagon machinery later.*

Hawkinsville—Water Works.—A bill has been introduced in the legislature authorizing the issuance of \$15,000 of bonds by the city for the construction of a system of water works.

Macon—Electric-power Plant.—The Metropolitan Street Railway Co. will shortly commence the erection of its electric-power plant.

Macon—Machine Shops.—The Richmond & Danville Railroad Co. (office, Richmond, Va.) will, it is reported, put new machinery in its repair shops at Macon.

Rome—Artesian Well.—Contract has been let to G. W. Haskell, of New York, and E. B. Chamberlain, of Chattanooga, Tenn., for the sinking of another artesian well at the city water works.

Rome—Rolling Mill.—The Rome Cotton Tie Manufacturing Co., mentioned last week, has doubled its output of cotton ties.

Rome—Steam Laundry.—W. R. Long, of Chattanooga, Tenn., is investigating with a view of establishing a steam laundry in Rome.

Savannah—River Improvements.—The business men of Savannah, Atlanta and Augusta have recently held a meeting in Savannah to formulate plans for securing a government appropriation of \$3,000,000 to deepen the Savannah river to 26 feet. Hon. Patrick Calhoun, of New York, will address the legislature upon the benefits to be derived from such a course.

Savannah.—The Savannah Dredging Co. is to increase its capital stock.

Savannah—Cotton Gin.—W. J. Epperson will erect a cotton gin.

Tennille—Laundry.—The Tennille Steam Laundry, recently burned, will be rebuilt at once. J. C. Harman is secretary.*

Thomasville—Steam Laundry.—C. W. Williams has, it is reported, purchased and will operate the Troy Steam Laundry.

Tilton—Grist Mill and Gin.—R. Collier is reported as erecting a cotton gin and grist mill.

Tybee—Sewerage System and Water Works.—A new water works system is reported as being constructed, and the construction of a sewerage system is talked of. The mayor can give information.

Waynesboro—Cotton Gin.—W. H. Lynch is reported as erecting a cotton gin at Ireland.

Waynesboro—Cotton Gin.—W. P. Netherland is reported as erecting a cotton gin at Ireland.

Waynesville—Lumber Mill.—A lumber mill is reported as being erected.

KENTUCKY.

Covington—Printing Works, etc.—H. Van Nes, C. A. Hartman and Louis Moser have incorporated the Southwest Co. to carry on a general printing and publishing business. The authorized capital stock is \$20,000; principal place of business in Covington.

Covington—Iron Furnace.—J. F. Walton, J. S. Neave and Charles Neave have incorporated the Walton Iron Co. for the purpose of manufacturing iron. The authorized capital stock is \$75,000; principal place of business in Covington.

Harrodsburg—Water Works.—J. A. Geary and J. F. Roche, of Lexington, have received contract for the construction of the water works at Harrodsburg, previously reported.

Louisville—Valve Factory.—The Automatic Valve Co. has been incorporated for the purpose of manufacturing and dealing in automatic valves under patent rights. The capital stock is \$15,000.

Louisville—Marble Works.—The Muldoon Monumental Works has been incorporated to manufacture and deal in statuary, monuments, etc.; the capital stock is \$200,000.

Louisville—Tobacco Factory.—The Greenville Tobacco Works has been reorganized and incorporated as the Greenville Tobacco Co. by H. Q. Grinter, R. P. Townsend and C. R. Long.

Middlesboro—Cigar Factory.—Henry Schroeder will start a cigar factory in Middlesboro, as reported last week.

Newport—J. E. Jones, J. M. Ruffner and H. G. Rich have incorporated the Interstate Buyers & Merchants' Benefit Co. to own and control the advertising medium known as the Buyers & Merchants' Benefit System for the States of Ohio, Indiana and Kentucky. The capital stock is \$150,000; office, Newport.

Somerset—Stave and Heading Factory.—The Somerset Stave & Heading Works has established plant with a daily capacity of 20,000 cut staves and 2,000 set heading.

LOUISIANA.

Abbeville—Sugar Factory.—A central sugar factory will, it is reported, be established near Abbeville.

Iberville—Water Works.—A stock company is reported as being organized for the purpose of constructing a system of water works.

Louisiana—Saw Mill and Timber Land.—Jacob Werkeiser, of Jefferson, Texas, is reported as having purchased timber land in Louisiana and as to erect a saw mill of 50,000 to 75,000 feet capacity.

New Orleans—M. A. Baccich, S. M. Fuch, B. P. Salatch and others have incorporated the New Orleans Lumber Towboat Co., Limited, to do a general towing business of boats, etc. The capital stock is \$25,000.

New Orleans—Steamboat Line.—The Red River Line has been chartered to establish a steamboat line on the Mississippi or Red river, etc.; capital stock \$60,000.

Shriver—Electric-light Plant.—As stated recently, J. T. Moore has contracted for the erection of an electric-light plant for his Wabun plantation.

Vidalia—Ice Factory.—Henry Vogt, of Louisville, Ky., has, it is stated, made arrangements for the erection of an ice factory in Vidalia.

MARYLAND.

Baltimore—Electric-light Plant, Suburban Town, etc.—The Kansas and other parties recently reported as having purchased 800 acres of land adjacent to Baltimore and as to build a suburban town, etc., have incorporated for that purpose the Roland Park Co. with a capital stock of \$1,000,000. The company's stated object is to deal in land, supply cities with pure water and to manufacture gas and electric light. The incorporators are R. R. Conklin, of Kansas City, Mo.; R. J. Capron, D. H. Thomas and others. The president is R. J. Capron, of Baltimore; vice-president, S. M. Jarvis, of Kansas City, Mo., and secretary, E. H. Bouton; office, Blackstone Building.

Baltimore—Abattoir and Refrigerator.—The Claremont Abattoir Co., with a capital of \$300,000, is to be organized for the purpose of erecting an abattoir and refrigerating plant at the Claremont Stockyards, to be operated on the co-operative plan. The Union Stockyards Co. can be addressed for information.

Baltimore—Stove Works.—W. E. Wood, C. J. Wood, John Kern and others have incorporated the Chesapeake Stove Co. with a capital stock of \$86,000.

Ellicott City—Electric-light Plant.—The proposition for the establishment of an electric-light plant, mentioned recently, has been accepted by the city council. It was made by Joseph Schriener, of Baltimore.

Garrett County—Oil and Gas Wells, Silver Mines, etc.—The Silver Bell Mining Co., reported recently (under Piedmont, W. Va.) as incorporated, proposes to mine silver and other metallic ores and sink oil and gas wells. R. M. Boyd is president; A. D. Miller, vice-president, and R. R. Matheny, secretary, all of Lonaconing.

McKinstry's Mills—Bridges.—Frederick and Carroll counties are jointly erecting the bridge over Sams creek on the Oak Orchard road, reported previously, with a span of 40 feet and a roadway of 14 feet. They will also erect another bridge over Sams creek on the Clemson Church road with a span of 64 feet and a roadway of 14 feet.

Sparrow's Point—Steel-rail Mill.—The Maryland Steel Co., recently mentioned, has completed its steel-rail mill and commenced operations.

Washington, D. C.—Sewer Construction.—J. W. Douglass will receive sealed proposals until August 18 for constructing sewers in the District of Columbia. Forms of proposals and other information furnished on application.

MISSISSIPPI.

Pass Christian—Electric-light Plant.—The Pass Christian Electric Light Co., C. M. Rhodes, secretary, intends to establish an electric-light plant.*

NORTH CAROLINA.

Belmont—Cotton Mill.—The organization of a co-operative manufacturing company for the purpose of erecting a cotton mill is talked of.

Blue Wing—Mining, Real Estate, etc.—H. S. Cumming, S. B. Ladd, H. P. Gilbert and others

have incorporated the Granville Copper Co. to develop mineral lands, deal in real estate, &c. The capital stock is \$500,000.

Charlotte—Printing Works.—The Blakey Printing Co., reported last week as incorporated, has organized with R. E. Blakey as president and J. S. Drakeford, secretary; authorized capital, \$5,000.*

Elizabethtown—Saw Mill.—W. B. Hester & Bro. are repairing their saw mill recently damaged by fire, and will put in some new machinery.*

New Berne—Shirt Factory.—A shirt factory is reported as started by Mrs. N. E. Kirkman.

New London (P. O. Bileville)—Sash, Door and Blind Factory.—P. B. Fetzer and N. F. York, of Concord; C. W. Swink, of Charlotte, and others have organized the Stanly Manufacturing Co. for the manufacture of sash, doors, blinds, etc. The capital stock is \$20,000; general manager, J. P. Beatty.

Oak Ridge—Flour Mill.—J. L. King will, it is reported, convert his tobacco-box factory into a roller process flour mill.

Raleigh—Carriage and Wagon Factory.—W. H. Holloway is reported as to establish a carriage and wagon factory.

Walnut Cove—Iron Foundry.—An iron foundry is reported as to be erected.

Walnut Cove—Mineral Land.—A Pennsylvania party is reported as having purchased and as to develop mineral property near Walnut Cove.

SOUTH CAROLINA.

Abbeville C. H.—Brick Works, Cotton Gin, etc. J. A. Smith and Francis Henry have incorporated the Enterprise Ginney Co. for the purpose of ginning cotton, manufacturing brick, ice, fertilizers, &c.; also to establish a steam laundry, etc. The capital stock is \$50,000.

Bethel—Gold Mine and Stamp Mill.—Mr. McNulty is reported as erecting a stamp mill and developing a gold mine on Beaver dam.

Blacksburg—Saw Mill and Tannery.—Ira Hardin is to establish a saw mill and possibly a tannery.

Campobello—Saw Mill.—McDowell, Barnett & Co. have erected a saw mill, and will soon put in lath machinery.*

Cheraw—Land Improvement.—The organization of another land and improvement company is talked of.

Darlington—Iron Works.—The Pee Dee Iron Works has been organized with a capital stock of \$40,000 for the purpose of manufacturing stoves, cotton presses, engines, agricultural implements, etc.

Darlington—Brick Works.—A. C. Spain & Co. have, it is stated, put new machinery in their brick works.

Darlington—Cotton Compress.—The stock company lately mentioned as to be organized by A. K. Clark, of Sumter, to erect a cotton compress in Darlington will be known as the Darlington Cotton Compress Co., with a capital stock of \$25,000.

Edgefield—Canning Factory.—A canning factory will be erected. For further information address W. F. Strickland.*

Florence—Land Improvement.—The Florence Land & Improvement Co., lately reported as organized to improve the northwestern portion of Florence, has been incorporated; capital stock, \$75,000.

Greenville—Fertilizer Factory.—The Greenville Fertilizer Co. has held the meeting recently reported and decided to increase its capital stock to \$50,000, as stated; the capital is at present \$100,000.

Jovann—Saw Mill.—J. C. Martin and R. H. Pender have, it is reported, purchased and will operate the saw mill of T. A. Clark.

Laurens—Drug Factory.—J. H. Traynham, J. T. Johnson, J. W. Ferguson and others have incorporated the Magic City Drug Co. with a capital stock of \$9,000, with privilege of increasing to \$100,000.

Mayesville—Saw Mill.—Henry Spann has erected a saw mill, as reported in our last issue.*

McClellanville—Land Improvement, Ship-yards, etc.—E. H. Jackson is president, and H. D. Jackson, secretary, of the Cape Romain Land & Improvement Co., lately reported (under Charleston) as incorporated for the purpose of purchasing and improving land along the South Carolina coast, build sailing vessels, developing the oyster and terrapin industry, etc.

Pon Pon (P. O. Jacksonboro)—Cotton Compress.—The Georgia Chemical Works, of Augusta, Ga., is reported as erecting a cotton compress of 30,000 tons capacity at Pon Pon.

Rock Hill—Brick Works.—The Rock Hill Land & Town Site Co. has started brick works, as reported recently.

TENNESSEE.

Arthur—Radiator Factory.—The Arthur Radiator Manufacturing Co. is, it is reported, now being organized.

Chattanooga—Elevator Works.—The Chattanooga Elevator Manufacturing Co. will, it is re-

ported, put new machinery in and increase the capacity of its elevator works.

Chattanooga—Iron Mines.—The Dayton Coal & Iron Co. has purchased the iron mines of the Nickajack Mining Co. and will develop same, as reported last week.

Chattanooga—Sash, Door and Blind Factory.—A. C. Hawler, of Chicago, Ill., is corresponding relative to the establishment of a sash, door and blind factory in Chattanooga.

Iron City—New Industries.—It is announced that the sale of the controlling interest in the Iron City Co. to Chicago (Ill.) parties will result in the establishment of a number of new industries in Iron City.

Jasper—Malleable Iron Works.—It is reported that works for the manufacture of steel, iron, chain, bolt and malleable iron will be established at Jasper.

Johnson City—Ice Factory.—The Graham Ice Manufacturing Co. will rebuild its ice factory, as stated last week.

Knoxville—Medicine Factory.—The Spence Medicine Co., of Greenville, is corresponding with the Chamber of Commerce relative to the removal of its medicine factory to Knoxville.

Knoxville—Woodworking Factory.—The stock company lately reported as having been organized by J. C. Connor and others for the purpose of putting new machinery in, increasing the facilities of and operating his woodworking factory on a larger scale, has been incorporated as the Knoxville Woodworking Co.

TEXAS.

Austin—The L. & H. Blum Land Co. has amended its charter, increasing capital stock to \$2,000,000.

Columbus—Artesian Well.—An artesian well is reported as being sunk.

Dallas—River Improvement, Ship-yards, etc. The Trinity River Navigation Co., recently reported as proposed for the purpose of opening up the Trinity river to navigation, has been incorporated as the Trinity River Navigation & Improvement Co. to build steamboats and vessels for the carriage of persons and property. The incorporators are J. H. Cochran, J. P. Thomas, J. B. Simpson and others; capital stock \$100,000.

Dallas—The Dallas Improvement Co. has been incorporated with a capital stock of \$100,000.

Dublin—Tannery.—A stock company is reported as having been organized and as having established a tannery for the purpose of tanning leather by the patent process of R. W. Turner.

Fisher County.—A. J. Long, of Sweetwater, Texas, has recently purchased 9,300 acres of land in Fisher county at \$46.50 for pasturing purposes.

Goliad—Brick Works.—F. S. Loomis will establish the brick works mentioned recently.

Gregory—Cotton Gin.—Harrell & Boswell are erecting the cotton gin recently mentioned.

Honey Grove—Artesian Wells and Water Works.—The Honey Grove Artesian Water Co., recently reported as incorporated, will sink artesian wells; at a later day may possibly construct water works.

Houston—Candy Factory.—J. B. Simpson, of Dallas, is corresponding with the Commercial Club relative to the establishment of a candy factory in Houston.

Jacksonville—Canning Factory.—The Jacksonville Canning Manufacturing Co. will, it is reported, increase the capacity of its canning factory.

Jacksonville—Canning Factory.—The organization of the Cherokee Canning, Pickling & Preserving Co. for the purpose of establishing a canning factory is projected. The capital stock will be \$25,000.

Livingston—Lumber Mill.—The erection of a lumber mill near Livingston is talked of.

Marshall—Basket Factory.—Investigations are being made for the establishment of a basket factory in Marshall.

Myrtle Springs—Broom, Ice and Woodworking Factories, &c.—The Texas Land & Industrial Co., recently mentioned, will establish an ice factory, broom factory, woodworking factory and paint factory.

Palestine—Real Estate.—J. R. Hearne, W. P. Savage, J. W. Ozment and others have incorporated the Palestine Real Estate & Investment Co. with a capital stock of \$100,000.

Ranger—New Town.—A new town to be called Silver Puss is reported as being built near Ranger, on the Texas & Pacific Railroad.

Smithville—Grist Mill and Gin.—D. E. LeBow is reported as putting new machinery in and improving his grist mill and cotton gin.

Taylor—Furniture Factory.—The Taylor Furniture Co. has been incorporated with a capital stock of \$5,000.

Velasco—Ferry.—G. W. Angle, of San Antonio; W. M. D. Lee, of Leavenworth, Kan., and L. E. Deyer have incorporated the Velasco Ferry Co.

VIRGINIA.

Alexandria—Land Improvement.—The Spring Park Land Improvement Co. has been incorporated with E. G. Hight, president, and J. R. Caton, secretary. The capital stock is \$100,000.

Alexandria—Mining, &c.—The Lathrop Mining & Reduction Co. has been incorporated for the purpose of developing mines, etc. The capital stock is \$100,000.

Buchanan—Sewing machine Factory.—J. Robinson, of Cleveland, Ohio, is investigating with a view of establishing a sewing-machine factory in Buchanan.

Charlottesville—Building material and Furniture Factory.—The Enterprise Mills Co., lately reported as to establish a furniture and builders' material factory, has been incorporated as the Enterprise Mills & Construction Co., with a capital stock of \$50,000.

Charlottesville—Coal Mines, Iron Furnaces, &c.—The Pike County Coal Co. has been incorporated with a capital stock of \$250,000 to develop coal mines, operate iron furnaces, coke ovens, etc.

Covington—Telephone Lines.—The Clifton Forge & Covington Telephone Co. has been organized with J. M. Buck, president; J. W. C. Bryant, vice-president, and G. T. Shepperd, secretary, for the purpose of constructing telephone lines.

Covington—Iron Furnace.—According to rumor, Frank Lyman contemplates the erection of an iron furnace at Covington.

Danville—Brick Works, &c.—The Danville Brick Co. has been incorporated for the purpose of manufacturing brick and building material. The capital stock is \$50,000.

Franklin—Building material Factory.—P. H., W. J. and A. T. Lee, J. P. Gay and A. L. Gardner will organize the Lee Manufacturing Co. for the purpose of manufacturing sash, doors and blinds and all kinds of ornamental building material. A. L. Gardner is secretary, and can give further information.*

Fredericksburg—Lumber Mill, Mining, &c.—The Spotswood Land & Mining Co. has been incorporated to manufacture lumber, deal in mines, etc. The capital stock is \$300,000.

Front Royal—The Royal Water Co. has been incorporated with a capital stock of \$50,000 to conduct an ice and plumbing business.

Graham—Electric-light Plant.—The Graham-Bluefield Electric Co. has been organized to operate the electric-light plant previously reported as to be erected to light the cities of Graham and Bluefield.

Harrisonburg—Machine Works.—The Rockingham Combination Slat & Wire Fence Machine Co. has been incorporated to manufacture and deal in slat and wire-fence machines. The capital stock is \$50,000.

Laurel Mills—Woolen Mill.—The Rappahannock Woolen Mills Co. has been incorporated for the purpose of establishing a woolen mill. The capital stock is \$50,000.

Leesburg—Street-lighting Proposals.—H. O. Claggett, mayor, will receive sealed proposals until August 29 for lighting the streets of Leesburg either by gasoline or by electricity.

Low Moor—Iron Mines.—The Rich Patch Iron Co. will, as reported last week, double the output of its iron mines.

Luray—The Valley Land & Improvement Co. has made a sale of the Luray Caverns, as reported recently in these columns.

Lynchburg—Iron Mines.—Messrs. Venable & Gallehorn have purchased iron lands on Walker mountain and are developing same.

Manchester—Furniture Factory.—Toler & Sons have erected an addition to their furniture factory, as reported last week (under Swansboro).

Newport News—Lock Factory.—L. H. Young, of Montreal, Canada, is reported as having completed arrangements for the establishment of a nut lock factory in Newport News.

Norfolk—Rolling Mill.—Referring to the rolling mill mentioned in these columns last week, the Chamber of Commerce states that "parties from abroad are here and have been for several days looking, it is said, for a suitable site."

Richmond—Sewerage System, Water Works, &c.—The Continental Development Co. has been incorporated with W. Y. Hamlin, of Detroit, Mich., as president, to construct water works, sewerage systems, deal in real estate, manufacture engines, dynamos, etc. The minimum capital stock is \$40,000, and the maximum \$800,000.

Richmond—Water-filter Works.—The Holt Improved Water Filtering Co. has been incorporated to manufacture and deal in improved water filters, etc. J. A. Morris is president, R. A. Wilkinson, vice-president, and J. L. Capston, secretary. The capital stock is \$25,000.

Roanoke—The Monitor Heating Co. has prepared plans for a plant to cost \$70,000.

Roanoke—Smelting Works.—Northern capitalists are investigating with a view of establishing smelting works in Roanoke. J. W. Neal can probably give information.

Savernake—Lumber Mill.—The Savernake

Planing Mill Co. has been incorporated to manufacture lumber, etc. The capital stock is \$25,000.

Savernake—Brick Works.—The Savernake Press Brick Works is reported as to erect several new dry-kilns.

Scottsville—Extract Works and Tannery.—D. O. Clements is reported as having erected two additional buildings at his tannery, and as to put in machinery to prepare his own tanning extract.

Staunton—Brass and Woodworking Factory.—John Kroder has, it is reported, purchased the plant of a brass and wood manufacturer in Baltimore, Md., and will remove same to Staunton, to be operated in connection with his brass and woodworking factory.

Strausburg—Cedar Works and Shuttle Factory. A party from Annapolis, Md., is reported as to erect the cedar works and shuttle factory lately mentioned.

Stuart—Canning Factory.—It is stated that a canning factory will be established.

Tazewell C. H.—Bed-spring Factory.—S. H. Turner is reported as having commenced the manufacture of his patent horse-shoe bed-spring.

Virginia—Machine Works.—The Virginia Border Alliance Mercantile & Manufacturing Co. has been incorporated to deal in merchandise and manufacture machinery, etc. The capital stock is \$30,000.

Winchester—Publishing.—The Winchester Times Co. has been incorporated with a capital stock of \$25,000 for the purpose of publishing a newspaper.

WEST VIRGINIA.

Central City (P. O. Huntington)—Handle Factory.—Hartzell & Caldwell, of Guyandotte, will, as reported in our last issue, remove their handle factory to Central City.*

Hartford City—Gas and Oil Wells.—The Mason County Oil & Gas Co. is sinking a well at Hartford City, as stated last week. This company has recently been organized with J. M. Hensley as president, and L. F. Roush, secretary and treasurer; capital stock \$100,000.

Huntington—Stone-sawing Mill.—E. H. Wishon, of Portsmouth, Ohio, is reported as to erect a stone-sawing mill at Huntington.

Hurricane—Hub, Spoke, &c., Factory.—The Hurricane Hub & Spoke Co. is the correct name of the company reported last week as incorporated to manufacture hubs and spokes, &c.

Moundsville—Carriage Factory.—It is stated that N. Ganier, of Pennsylvania, contemplates the removal of his carriage factory to Moundsville.

Moundsville—Electric Light Plant.—The Moundsville Electrical Co. is reported as having put a new dynamo in its electric-light plant.

Parsons—Saw Mill.—J. L. Poling & Co. are erecting a saw mill.*

Wheeling—Electric-light Plant.—It is stated that the city has let contract at \$85,400 for the machinery for its electric-light plant reported recently.

Buena Vista (Va.) Notes.

BUENA VISTA, VA., August 1, 1891.

Editor Manufacturers' Record:

The shipment of pig iron by the Buena Vista Iron Co. for the week ended July 25 was 29 car-loads, the same as for the week previous. The demand seems to be steadily increasing, the grade being very largely foundry iron. If cars could have been furnished the shipment last week would have included 600 tons additional to fill a recent order.

The Red Brick Yards at North Buena Vista have large stocks on hand, though several orders have been filled lately. Mr. P. J. Lynch is now completing a contract for a large quantity for the new Hotel De Hart, now building by the Lexington Development Co., and an engagement has also been entered into to supply the brick for the edge-tool factory going up on the premises of the same company.

The Buena Vista Glass Works expect to commence operation about September 1, and we shall soon see another and a most valuable addition to Buena Vista industries in full play. They are now taking orders for early delivery. The plant has been erected with much care, and work on the intricate construction required has progressed rapidly. The completion of this plant will cause a demand for 30 or more houses as homes for the operatives. Thus our 400 and more houses already erected are not sufficient to meet the demand for homes in Buena Vista, which is not only now greater than the supply, but daily increasing.

Iron Ores and Manganese on Craig's Creek and John's Creek, Virginia.

BY THOMAS P. GRASTY.

The completion of the Craig's Creek branch of the Chesapeake & Ohio Railroad, which leaves the James River division at Bessemer and runs up Craig's creek to New Castle, marks an important epoch in the iron and steel history of the South, for so soon as the "forks" of this new line of rail shall have been extended, the one further up Craig's creek and the other up John's creek, which at New Castle flows into Craig's, there will be available to the outside world an amount of rich iron ore and manganese which has few counterparts on this continent. I have spent almost a fortnight, accompanied by a skilled geologist and mining engineer, going over the ore measures of Craig's Creek mountain.

There was once upon a time thrown up here by a great upheaval a mighty mountain, which was at the outset probably the highest in all Appalachia. The top of this mountain was of limestone, the sides of sandstone, between which were iron ores. Ages of rains and floods washed out the soft top of this great mountain, the outcome being what is known as Sinking Creek valley. The center having been eroded, there remained the two sides, the easternmost draining into Craig's creek, the westernmost into John's. These two remnants got to be called, respectively, Craig's Creek mountain and John's Creek mountain. Few of the natives realize that once it was all one big mountain.

The town of New Castle in pre-revolutionary times was located where these two creeks come together, and the head of the mountain is just back of the town. Bear in mind that this original single mountain is now indented at the top; and from the top of Bald Knob, at Mountain Lake, whence I first saw the Sinking Creek valley and this double-named mountain, the peaks that have so far escaped erosion and the "washout" between look like the back of a dromedary. It is up this Sinking Creek valley and through these "humps" that the road from Mountain Lake to New Castle runs. In a mule-wagon, Mr. A. E. Humphreys, who is president of the New Castle Improvement Co., drove me through this lovely limestone valley on up through the gap between the "humps" directly after I had finished my article on the ores and timbers of the Mountain Lake property which, under the heading of "A New Iron Ore and Timber Field," appeared in the MANUFACTURERS' RECORD of July 25th. That article, however, like this, was only preliminary. It was, like this will be, but the "outcrop" of what remains to be written of a region richer in ores than any other in Virginia. The Mountain Lake property and the property owned by the Manganese Iron & Coal Co. and the Potts creek properties are all parts and parcels of the great "Rich Patch" mineral district of Virginia. The northwestern boundary of this wonderful area is Jackson's river; the southeastern, New river; the northward-flowing streams being Craig's and John's and Potts; the southward, Sinking, Little Stony and Big Stony. There are about 200,000 acres in this area, owned by the Mountain Lake Land Co., the Manganese Coal & Iron Co., and the Potts Creek Syndicate, of which last named it is understood that ex-Senator Camden is the head and front.

My report on the Mountain Lake property was published in the MANUFACTURERS' RECORD of July 25th, and in the present letter is given the result of my investigation of the property tributary to New Castle and Craig City, and I shall probably next tell about the ores of the Potts Creek basin.

The Chesapeake & Ohio Railway is about to become one of the great iron-ore haulers of America. I do not write

this to boom the Chesapeake & Ohio, for I owe it no favors and expect none from it, but the New River coal fields and the Rich Patch iron-ore district cannot be considered separate and apart from the line of rail which has a monopoly of the output. An iron mine in the middle of the Sahara desert would be as worthless as a million in gold to a man who there wanted a drink of water. Mineral wealth is available only when transportation is at hand; money is only valuable when commodities are in reach.

The future Pittsburg will be at New Castle and Craig City, two twin towns, separated only by a creek, and the shipping port will be Newport News. Once let it be proved that there is an inexhaustible quantity of iron ore in Chesapeake & Ohio territory, and then Newport News, the seaport of the entire region, whose products the Chesapeake & Ohio must carry to the sea, will by natural sequence become the most sought-for place on the South Atlantic seaboard. Wait till I have explored Potts creek, and then we will talk about Newport News, for the product of the entire Rich Patch region must inevitably find an outlet at Newport News.

But to return to the ores above New Castle and Craig City. Accompanied by Col. J. C. McDonald and Mr. D. F. Connell and Mr. W. A. Connell, a most accomplished mining engineer, I first went up Craig's creek seven miles on the Salem turnpike and inspected the "Seven Pines" opening. This is the highest up of the easily reached openings in the Oriskany. Here were found two sandstone walls. The hanging or roof wall is about 200 feet below the floor wall. Between these sandstone walls the diggings showed almost solid iron. The under side of the roof wall is lined with manganese, which is found in great boulders sticking to the sandstone. The mountain is full of ridges, and each ridge for miles and miles is similar in formation to the ridge cycled "the Seven Pines." Leaving the two older gentlemen behind, Mr. W. A. Connell and I traversed two or three of these ridges. The formation was identical with that at "Seven Pines." Mr. Connell informs me that all the ridges he has so far climbed show the rocks and the ores in place; that is to say, the rocks are continuous and persistent through all the ridges of Craig's Creek mountain, and it is easy to determine the amount of ore available by measuring the distance between the walls and estimating the undeveloped ribs by those which have been exploited.

Yes, New Castle and Craig City are destined to become the Pittsburg and Alleghany City of the South. Of this there can be no doubt. There are, as will be shown directly, over one hundred million tons of rich iron ore close to these twin towns, not counting the bog ores. There is more manganese hereabout, a hundred times over, right under the dirt, than was ever taken by Andrew Carnegie out of Crimora. This I am convinced of by personal observation.

Now a word concerning the railroads and we will come to the geology of the country. After spending nearly two weeks looking over the iron measures and the blanket of "bog ores" and the manganese deposits, I took the next train to New York to consult with Mr. C. H. Coster, of Drexel, Morgan & Co., concerning the plans of the Chesapeake & Ohio in possessing this great area. Said Mr. Coster: "Do you suppose we built up to New Castle, where the great leads come together, with the expectations

of stopping there? No, sir; we shall quickly build up John's creek and Craig's creek, and New Castle and Craig City will become the great iron center of the Appalachian region."

"What do you think of these two extensions from a standpoint of profit to the builders?" asked Mr. Coster.

"They will prove the most profitable 50 miles of rail in the State of Virginia," was my reply, "irrespective of any traffic but that afforded by the iron ores and manganese. Moreover, in case these ores are smelted principally at New Castle and Craig City (which should be considered as one and same), there will soon spring into existence in Chesapeake & Ohio territory a phenomenon in the town line which may eclipse the record of Roanoke."

Said Mr. Coster: "The branch from Bessemer on James river to the confluence of John's creek with Craig's creek was built with reference to the very traffic you refer to. And so you may say that the management of the Chesapeake & Ohio Railway from the day it undertook that first step toward these great ore fields has never for a moment had any other intention than to go on farther as quickly as might be possible, so as to make the most of its opportunity. Yes, the road will fork at New Castle, and go as far up the two creeks as the minerals will justify."

And in this connection, without quoting anybody, I will give it as my opinion that Bessemer, in Botetourt county, and the twin towns at the head of the great mineral mountain of the county of Craig, where the C. & O.'s great mineral branch will fork—that these places will be the most signal instances in Virginia of that combination which always makes towns grow, viz., grouped raw material and railway co-operation.

The mineral lands for many miles up Craig's creek and up John's creek are owned, as I have said, by the Manganese Iron & Coal Co., and about 20 years have been spent in picking out and acquiring title to the 20,000 acres of strictly mineral lands which this company now owns in fee simple. Col. J. C. McDonald was colonel of a Virginia regiment during the war, and for a time was stationed at New Castle. It was then that his attention was attracted to the vast iron-ore deposits in the vicinity. Soon after the war he became associated with Mr. D. F. Connell, now of Portsmouth, Ohio, and they have been constantly at work, with occasional intermissions, ever since getting in hand this enormous property. The history of their endeavors and difficulties would make an interesting chapter, which I hope some day to write.

I have given my impressions of the mineral resources of this district without any attempt at technical description, for I am provided with an interesting report by Mr. W. A. Connell, who has spent much of the last few years investigating these properties. Mr. Connell is a graduate of the department of geology and mining engineering of the Ohio University, and took a post-graduate course in metallurgy at Pittsburg. He is one of the most painstaking, accurate and conscientious of men—one of those with whom it is a pleasure even to climb mountains. The following is his report:

MR. W. A. CONNELL'S REPORT.

NEW CASTLE, VA., July 29, 1891.

MR. THOS. P. GRASTY, Staunton, Va.:

My Dear Sir—I enclose you a cross section of the North mountain, Craig valley, Craig Creek mountain, Sinking Creek valley, John's Creek mountain and John's Creek valley, in the main after a cross section of Prof. Wm. B. Rogers, though with such changes as have been developed by my recent work here, among which changes I would call your attention to the fact that No. III exists also on Craig creek, whereas it has hitherto been omitted there.

This is an actual cross section of the country looking southwest from Craig City and New Castle. From an examination of this section it is quite apparent that these great mountains are the result of an upheaval; but through the ages past there has been an enormous denudation and erosion, disintegrating and wearing away the softer rocks, carrying them down the mountain-side by rains, thus cutting out deep gullies, and at last depositing the former rock as fine soil in the valley below; while the harder rocks, resisting this erosion to a greater extent, have formed bold cliffs and rugged points. Many large rocks have been undermined and fallen down the slope, breaking in thousands of fragments and covering the mountain-side with debris. The disintegration of those formations carrying iron and manganese ores has scattered larger or smaller pieces of them over much of the mountain-side far beneath.

Erosion is nature's restless work. It carves the mountains into such form as we see them to-day; it forms the bold cliff, the deep gorge, the shady vale and the rocky peak; it covers all with a confused mass of rock, sand, clay and ore, and the irregularity of the mountain is complete.

THE GEOLOGICAL FORMATIONS.

For convenience we may examine each formation (here shown) separately, and then, from their location in the mountains, derive much valuable information.

II.

This is the great Trenton limestone, also called Knoxville and valley limestone. It was a widespread formation, deposited in a clear, warm and shallow sea, which covered at that time all of what is now the United States, so that this limestone underlies the whole of this country. It was then that our early fauna was expended and the sea swarmed with millions of the lower orders of animals, which made this generally a highly fossiliferous limestone.

Its economic resources are as follows: It is the great gas and oil horizon of Findlay and Lima, Ohio. It is everywhere a valuable flux for furnaces, and yields lime of great purity and strength. It carries no regular deposits of iron ores, which by the action of water have been deposited with clay in the many cavities with which all soft limestones are filled. The shell of these cavities may have since been eroded, leaving the iron ores scattered about in pockets of clay. Ores of this character are generally of exceptional purity, and in this section of country have been mined to considerable extent in the Sinking Creek valley about Newport.

III.

This is the Utica and Hudson River group. It is a shale formation of considerable thickness. In its upper layers, next to the Medina (IV), it carries considerable iron ore.

IV.

This is the Medina. It is a dark-red sandstone, heavily charged with iron, of great durability, and in many places exceedingly valuable as a building stone.

V.

This is the Clinton formation, with its beds of red shale and fossil iron ores. These ores are perhaps most fully developed in Tennessee and Alabama, where they attain a thickness of 20 to 30 feet.

VI.

This is the Lower Helderberg limestone, valuable as flux and as a source of lime.

VII.

This is the Oriskany sandstone, a great sandstone formation carrying throughout the State of Virginia beds and layers of excellent iron ores interspersed with layers of sand rock. In many places its sand is pure enough to be used in the manufacture of glass. In some localities it carries in its upper portion great deposits of high-grade manganese and manganiferous ores. The formation is of good thickness in this

section of the country and carries immense quantities of rich brown hematite iron ores. It is the great ore-bearing formation of the Rich Patch mountain. In the famous Craig valley continuation of the Rich Patch, not satisfied with the vast deposits of iron ores, nature, seemingly in a mood of lavish liberality, has provided immense deposits of manganese. This formation is of great economic value.

VIII.

This is the Corniferous limestone, together with the great shale formation, including the Hamilton, Genesee and Chemung. The limestone is found in the lower layer. It is another highly fossiliferous limestone and yields fine lime, and is a good furnace flux. It rises in bold cliffs along Craig's creek and is very accessible.

IX.

This is the Catskill, a great shale and slate formation.

X.

This represents the subcarboniferous sandstones, carrying in place, so far as developed, but small deposits of coal, valuable for local use.

So much for these separate formations in their general character. Let us now note their location and economic resources in Craig county, Va.

SINKING CREEK VALLEY.

In the great upheaval by which the main mountains were formed it is evident that the Craig mountain and John's Creek mountain formed one great anticlinal fold, while the synclinal or trough on either side formed the valley of Craig's creek and of John's creek. In the upheaval the

There are good ores in many of the other formations, but they are not so regular or persistent. Much of the discontent as to many iron furnaces is due to the fact that they have been located upon "town-sites" rather than upon ore beds. Many are located either on the one side or the other of the great outcrop of the Oriskany, while those who have located within its reach are alive and active to-day. The Rich Patch and Craig's creek range, carrying the true Oriskany with its abundant iron ores, lies between the Chesapeake & Ohio and the Norfolk & Western Railroads. The Low Moor and Princess furnaces, on the Chesapeake & Ohio, are located at the foot of the Rich Patch, where they can draw their supply from the Oriskany, and they have not known an idle day, except for repairs. There are not less than 20 or 30 furnaces located within a radius of 50 miles, taking Craig City as a center. All of them are more or less within reach of the Oriskany ores, and just in proportion to their distance from these ores is their activity. The line of outcrop of the Oriskany in Southwest Virginia is now conceded to be along the Craig valley, and Craig City and New Castle is now looked upon as the center of the greatest deposits of iron and manganese in this country, and the coming "Pittsburg" of the South. This fact has been expressed by many experts heretofore, and is becoming more evident every day.

The Corniferous (VIII) is found outcropping in some places near the creek in bold limestone cliffs. This is notably the case about one mile southwest of Craig City, where it is exposed in a great bluff of about

ganese and then upon brown hematites; in the Clinton (V) are the red shale and fossil ores (the latter not developed); between III and IV, deposits of brown hematite again. The various ores will yield from 40 to 60 per cent. of metallic iron, the average being fully 50 per cent., while they are very low in phosphorus and contain no injurious substances.

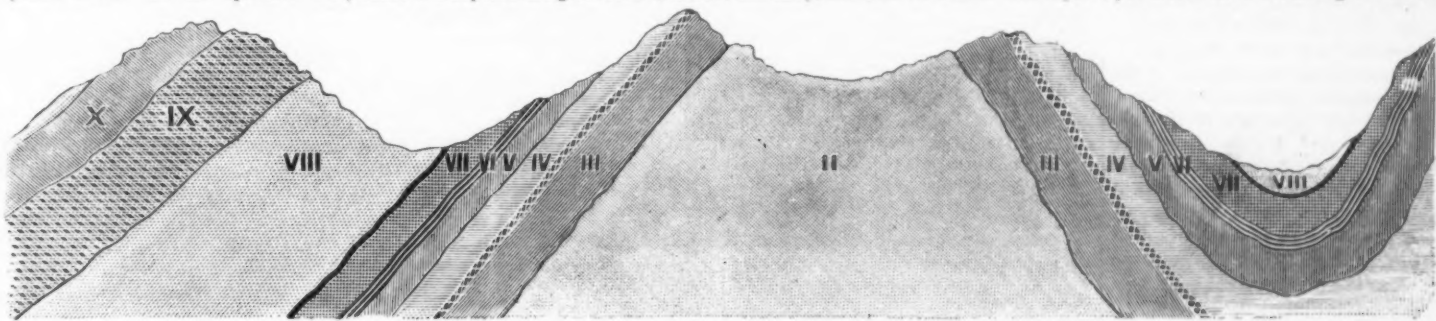
BOG ORES.

The bog ores are to be found in blankets from 1 to 4 feet thick, covering almost all the foothills some little distance above the valley road. They are of an open, porous structure, and exceedingly free from impurities. They yield from 45 to 55 per cent. metallic iron, and on account of their porous structure will melt down most readily in the furnace. They are found along the portion of VII and VIII adjoining, because they are of later formation than these or the ores they contain, but are made from the hematites of the Oriskany lying higher up the mountain, as follows: It is a fact well known to chemists that water containing free carbonic acid will take into solution more or less iron, as carbonate, but that when it is afterward oxidized the iron will be deposited. By reference to the cross section you can see there exists the required conditions. The rains falling upon the mountain-side will get carbonic acid from the decaying vegetable matter or from the Helderberg limestone (VI). This water then passes upon the rotten, crumbling Oriskany (VII) sandstone with its vast iron ores. There it dissolves and takes up as much iron as it can carry, and with its load of iron it per-

in some places. It is difficult, therefore, to estimate the amount of ore in the Oriskany, while one can only guess at the amount in the other formations on account of their irregularity. For the Oriskany ores, I think a conservative estimate would be at least 10 feet of ore. As it is 600 feet above Craig's creek, we might estimate the amount of ore above water as follows: Thickness 10 feet x 600 feet x 40 miles in length on Craig mountain and John's Creek mountain would give 1,267,200,000 cubic feet of ore. These ores will yield $2\frac{1}{2}$ tons per cubic yard, so that there will be 105,599,999 tons of brown hematite ore in the Oriskany upon this property, besides all of that found in the other formations. This 105,599,999 tons would be sufficient to supply 10 furnaces, each making 100 tons of pig iron per day, using 2,000 tons of ore, for a period of 150 years.

MANGANESE.

I know of no such deposits, nor have I ever seen in any books of science an account of such deposits of manganese as I have seen and developed on this property. It is a recognized fact that manganese does not lie in a regular vein, but rather in "pockets," but there is such a continuity of pockets along the Craig mountain that it might be said to be a regular vein. The manganese I have likewise found in almost every gulley and on almost every ridge for some fifteen miles up Craig's creek. The deposit is much heavier in some places. It is found in the upper part of the Oriskany (VII), which is that portion adjoining the Corniferous (VIII), but that portion which you cross first in ascending the mountain



CROSS SECTION OF CRAIG AND JOHN'S CREEK MOUNTAINS, CRAIG COUNTY, VIRGINIA.

formations were doubtless broken on the summit of the anticlinal, thus leaving the Trenton limestone (II) exposed. This limestone, being quite soft and porous, was easily disintegrated, so that in time a valley has been eroded in the top of the great anticlinal far above the valley on either side. This valley is now called the Sinking Creek valley from the fact that the small stream which flows through it for some 35 miles sinks entirely into the ground and is seen no more. This is a most fertile limestone valley, with numerous caves and caverns throughout its extent. The soil is rich, producing fine blue-grass and beautiful crops. It is occupied by a hospitable, thrifty people, who devote their time to cultivating the soil and raising fine stock. I have heretofore (in discussing II) spoken of the iron ore which is to be found in this valley.

CRAIG VALLEY.

Upon the Craig's creek side of the Craig mountain are exposed the various formations of the Devonian and Upper Silurian rock, with their vast deposits of iron and manganese ores. The same also is true of the John's creek side of the John's Creek mountain. On the slope of either mountain are to be found the ores lying between III and IV; also the Clinton (V), with its curious fossil ore; the Lower Helderberg (VI), with its flux ready for furnace use; the Oriskany (VII), which is acknowledged by all geologists to be the true and most reliable iron-bearing formation of Virginia. The ores found in it have greater thickness and a greater continuity and persistency than in any other formation in the State.

60 feet. The upper portion of VIII consists of shales and slates, which extend across the creek bottoms and up the opposite mountain-side. The Catskill (IX) consists of shales and slates, which make up the bulk of the west side of North mountain. The subcarboniferous sandstones (X) make up the greater portion of the east side and top of North mountain. In this is found some coal on the Catawba and at Stone Coal Gap.

So much for the geological formations and their economic resources. I desire now to call your attention to the

MANGANESE, COAL & IRON CO.

This company owns 20,000 acres of land lying in Craig and Montgomery counties, Virginia. Their lands extend from Craig City southwest along the slope of the Craig mountain for a distance of 25 miles, and along the John's Creek mountain a distance of about 17 miles. It is thus parallel with and embraces the outcroppings of all these great ore-bearing formations for a distance of about 40 miles.

IRON ORES.

The development of this property has been confined almost exclusively to Craig's creek, and other than making a geological survey, I have done nothing thus far on John's creek, though I am convinced that there is fully as much ore there as on Craig's creek. Upon this property there are several grades of iron ores which will be found as follows: Ascending the Craig mountain from the creek, you cross in the lower foothills heavy deposits of fine bog ores (of which I will speak later); in the Oriskany (VII) you come first upon man-

colates down through the disintegrating sand-rock. Somewhere beneath on the hillside it issues forth again, now as a clear, cold, chalybeate spring, and as it comes to the surface it is mixed with the oxygen of the air, the iron becomes oxidized and is deposited as a dark red or yellow slime, which accumulates with time and hardens into a solid bed of iron ore, petrifying twigs, branches and roots of the vegetation upon which it falls, giving the characteristics of bog ores. At once it can be seen that it must of necessity be a pure ore, and that it must occupy lower ground than its parent ore. The porosity of the Oriskany sandstone and the vast deposits of iron ore in it have given rise to an endless blanket of bog ores along the foothills.

HEMATITES.

The great persistency and thickness of the Oriskany ores in this section are surprising. At an elevation of about 600 feet above Craig's creek the outcroppings of enormous deposits of brown hematites in the Oriskany can be found. I have traced the ores along this line of outcrop about 20 miles up Craig's creek, finding them in almost every gully and on almost every ridge throughout. The lower foothills are covered with "float" ore as the result of the great denudation of the sandstone. Fully 100 test pits have been dug along this outcrop, and not one has failed to show up the ores. No cuts have been made through these ores, though some of them have been exposed showing a thickness of 20 feet, and additional test pits in connection with these openings indicate fully 40 feet of ore

In some parts of the Oriskany (VII) it occurs along with a vein of brown hematite, sometimes intimately mixed with it, and giving rise to five manganiferous ores. In other places it seems to be separated from the hematites by ribs or partings of sand-rock, giving it the appearance of being in a regular vein, in which cases it is of great purity. In other places the partings of the sandstone have suffered great denudation, leaving the manganese spread out over some of the "benches" among the foothills, covering areas in some places of 400 square yards, where it can be dug out with a stick in lumps from the size of a hen egg to masses of hundreds of pounds. At a depth of about five feet in such places the loose ore passes in large firm boulders weighing several tons. Such is notably the case on the "light" land, some 12 miles southwest of Craig City. Throughout the property below the Oriskany (VII) an immense "float" of manganese is found, indicating the existence of a vast deposit higher up the mountain. The ores have been developed at different points, showing a thickness of from three feet in apparent veins to five feet in pits of loose ore, with boulders in the bottom so large as to be unminable with the pick and shovel. In these places it has not been cut through, and it is impossible to tell the thickness at present. There is, however, conclusive evidence that the supply of manganese on this property is practically inexhaustible. The quality is excellent, as shown by the following analysis from different sources.

Dr. Henry Froehling, Ph.D., of Rich-

mond, Va., gives the following analysis of this manganese:

Metallic manganese.....	54.397
Phosphorus.....	.137
Iron.....	1.174
Silica.....	3.491

Prof. Sharpless, State chemist of Massachusetts, gives the following:

Metallic manganese.....	49.45
Phosphorus.....	.10
Iron.....	6.83
Silica.....	2.55

Both manganese and iron ores can be mined at a minimum expense. Hundreds of tons can be picked up on the surface, but the bold outcroppings admit of open cut working throughout such an extent that for years it will only be necessary to scratch off a few inches of soil and go to work direct on the ores. There are grades of ores for the manufacture of spiegeleisen or of high-grade ferro-manganese, a variety of iron ores to give valuable mixtures for the furnace, excellent limestone right at hand for flux, excellent water-power and all that could be desired for the cheap production of iron. There can be no doubt that this is one of the most valuable mineral properties in the United States.

W. A. CONNELL, E. M.

News from Norfolk, Va.

NORFOLK, VA., August 4, 1891.

Editor Manufacturers' Record:

It is announced that the Norfolk & Carolina Railroad and the Richmond & Danville system have arranged a tariff of freight and passenger rates advantageous to both to go into effect at an early day. By this arrangement freight can be shipped from any point on the Norfolk & Carolina Road to any point on the Richmond & Danville lines, and vice versa. The regions reached by the various arms of the Richmond & Danville, embracing large portions of the States of Virginia, North and South Carolina, Georgia, Alabama and Mississippi, will thus be placed in direct connection with the rich and fertile territory tributary to Norfolk traversed by the Norfolk & Carolina Road from Norfolk to Tarboro, in North Carolina. This latter is a comparatively new road, having been in operation but a few years, and was built at a cost of over \$2,000,000, without any subscriptions from the cities or counties through which it runs. It is a valuable feeder to Norfolk.

Engineers are engaged in locating and making the final surveys for the Norfolk, Wilmington & Charleston Railroad. This road is to be built under contract by the Carolina Construction Co.

It is said that the Norfolk & Western people have agreed to extend their road from Norfolk to the lower end of Wiloughby Spit, the condition being that a fine hotel be put up at that point. This will be done at once if the arrangement is carried into effect, and both projects will be carried out by next summer. This hotel would be but two miles and a-half from Old Point Comfort by ferry, and the time to that place from Norfolk would then be reduced to about 30 minutes. The hotel will cost \$75,000, and piers will be built so that steamers plying back and forth may touch there as they now touch at Old Point.

Norfolk must be attracting attention as a place of scientific interest, since it is announced that along with the Caverns of Luray and the Natural Bridge it has been selected by the American Association for the Advancement of Science as a point to be visited by the members after a meeting to be held in Washington on the 17th inst. This association, which numbers 5,000, is composed of men of high scientific attainments from all over the country, and a visit from several hundred of the members will be a compliment of importance not to be overlooked by the citizens of Norfolk.

J. F. BARNES, Greenville, Miss., wants paper and mantels for building purposes.

MESSRS. GRUFFYD & JONES, of Avon Park, Fla., want addresses of glass bottle and cork manufacturers.

[CONTINUED FROM PAGE 38.]

Richmond, Va.—Hotel.—John Murphy has purchased the Palace Hotel property and will, it is stated, rebuild same.

Roanoke, Va.—Hotel.—Architect Pearson, of Philadelphia, Pa., has, it is reported, prepared plans for the erection of the hotel recently mentioned as to be built on Mill mountain. It is to be two stories, 60x75 feet, with an L 40 feet long, and cost about \$12,000.

Roanoke, Va.—J. B. Pollard has secured contract for the erection of a residence for J. W. Cox to cost about \$5,475.

Rock Hill, S. C.—School Building.—The Rock Hill Construction Co. has contract, as lately stated, for the erection of the Rock Hill High School. Heating apparatus will be put in.

Runge, Texas.—School Buildings.—A school building will probably be erected.

Selma, Ala.—Hotel.—The Hotel Albert Co. is the company previously reported as purchasing and to complete the Selma Hotel. About \$80,000 have already been expended on the property, and the company will expend \$30,000 more.

Senola, Ga.—Work has been commenced on the erection of a two story brick building, 115x55 feet, for Couch & Lugenbeel.

Shepherdstown, W. Va.—Town Hall.—G. W. & S. P. Humerichhouse have secured contract for the erection of a brick town hall building.

Shreveport, La.—School Building.—A school building is reported as to be erected at Holmesville.

Stuart, Va.—College.—Additional buildings will probably be built to the Stuart Normal College.

Sumter, S. C.—School Building.—As reported in last issue, J. B. Carr has contract for erecting the building for the Sumter graded school.

Sutton, W. Va.—Hotel.—The hotel lately mentioned will be built. It is to be a three-story brick structure and contain 50 rooms. T. M. Berry can give particulars.

Tallahassee, Ga.—The Globe Construction Co., mentioned in last issue, is erecting a two story brick block, large brick stable and several dwellings.

Tampa, Fla.—Club Building.—The Tampa Bay Club contemplates the erection of a \$15,000 building. A. H. St. Denis can give information.

Terra Alta, W. Va.—Hotel.—Ward Fitzgerald, of Washington, D. C., is reported as to erect a \$10,000 hotel near Terra Alta.

Waco, Texas.—Depots.—The San Antonio & Aransas Pass Railway Co. (office, San Antonio) contemplates, it is reported, erecting a freight depot in Waco; also union passenger depot in conjunction with other roads.

Waynesboro, Va.—Church.—Architect Dimmock has prepared plans for the erection of the \$10,000 edifice lately reported as to be built by the Baptists.

Waynesboro, Ga.—W. H. Lanier will erect a two story brick store.

Wheeling, W. Va.—Depot.—It is understood that the Baltimore & Ohio Railroad Co. (office, Baltimore, Md.) will erect a new passenger depot when certain concessions are made by the city to enable it to change the present route through the town.

Wheeling, W. Va.—Engine-house.—Wilson & Champan have secured contract at \$6,597 for the erection of the building lately reported for the Vigilant Engine Co.

BURNED.

Austin, Texas.—The B. C. Jones Printing House.

Birmingham, Ala.—The depot of the Alabama Great Southern Railway Co.

Fairbanks, Fla.—The shingle mill of J. S. Good.

Little Rock, Ark.—The dry-kiln of the Little Rock Cooperage Co.; loss \$6,000.

Seville, Ga.—Two turpentine stills of Bush & Bullock near Seville.

Texarkana, Ark.—The saw mill of Whitesel & Byrne, near Texarkana; loss \$12,000.

Vicksburg, Miss.—The Springler saw mill and sash factory; loss \$50,000.

IN last week's issue it was stated that reports received by Comptroller-General Ellerbe from county auditors indicated that the State assessment of property in North Carolina for this year would exceed that of 1890 by \$7,000,000. We should have written South Carolina.

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Artesian Well.—Machinery for boring artesian well will be wanted. Address N. A. Matthews, Wills Point, Texas.

Belting.—W. B. Hester & Bro., Elizabethtown, N. C., will need belting.

Belting.—Hartman & Steavens, Kensington, Ga., need belting.

Belting.—Hartzell & Caldwell, Guyandotte, W. Va., will want belting.

Boiler.—Hartman & Steavens, Kensington, Ga., need a boiler.

Boiler.—W. N. McAnge & Co., Staunton, Va., want lowest cash price on a small yacht boiler for 6 in. x 6 in. engine.

Boiler and Engine.—C. C. Thomas, Prease, Va., wants prices on 35 horse-power engine and 40 horse-power boiler.

Boiler and Engine.—M. H. Dalton, Palatka, Fla., wants a 30 horse-power boiler and a 25 horse-power engine.

Boiler and Engine.—J. C. Harman, secretary, Tenuille, Ga., wants boiler and engine.

Boiler and Engine.—The Jonesboro Cotton Mills Co., Jonesboro, N. C., wants to exchange a 45 horse power boiler and engine for a 80 horse-power boiler and engine.

Boiler and Engine.—Hartzell & Caldwell, Guyandotte, W. Va., will want a 125 horse-power engine and boiler.

Boiler, etc.—A. M. Baker, New Berne, N. C., wants a heater or boiler to burn oil or benzine or some kindred fluid.

Boilers and Engines.—The Lee Manufacturing Co., A. L. Gardner, secretary, Franklin, Va., will want boilers and engines.

Canning Factory.—W. F. Strickland, Edgfield, S. C., wants full outfit for canning factory.

Chair Machinery.—The Novelty Woodworking Co., Hickory, N. C., will probably want chair machinery.

Cotton Gin and Press.—Hartman & Steavens, Kensington, Ga., need a cotton gin and a cotton press.

Cotton Mill.—The Jonesboro Cotton Mills Co., Jonesboro, N. C., will want 4 spinning frames, three 36-inch cards, one railhead, two drawing frames and one spooler.

Crusher.—Wendell Ruof, Knoxville, Tenn., wants prices and full description of machine to crush sandstone into building sand.

Dry-kilns.—The Lee Manufacturing Co., A. L. Gardner, secretary, Franklin, Va., will want dry-kilns.

Dust Separator.—Hartzell & Caldwell, Guyandotte, W. Va., will want a dust separator.

Electric-light Plant.—The Cumberland Manufacturing Co., Harriman, Tenn., will want apparatus for an electric-light plant.

Electric-light Plants.—The Pass Christian Electric Light Co., C. M. Rhodes, secretary, Pass Christian, Miss., desires to correspond with manufacturers of electric-light plants.

Electrical Railroad.—Henry V. B. Smith, of West Superior, Wis., will probably soon invite bids for building and equipping an electrical railroad.

Elevator.—J. E. West, Middlesborough, Ky., will want a hand-power elevator.

Engine.—F. B. Cole, Newnan, Ga., is in the market for a 75 horse-power automatic engine for electric-light plant.

Extract Works.—E. S. Watson, Lynchburg, Va., wants estimates on machinery for oak bark extract works.

Fan.—Hartzell & Caldwell, Guyandotte, W. Va., will want fan for handle factory.

Flour Mill.—M. F. Thacker, Crowell, Texas, wants estimates on 100-barrel flour mill complete.

Foundry.—The Hanover Foundry & Machine Co., Hanover, Pa., will need full outfit for iron foundry.

Heating Apparatus.—J. F. Barnes, Greenville, Miss., wants either hot-air or hot-water system for heating a new jail.

Heating Apparatus.—The Rock Hill Construction Co., Rock Hill, S. C., will want heating apparatus for school building.

Heating Apparatus.—U. P. Woodridge, Austin, Texas, will receive sealed proposals until August 22 for the erection of a steam-heating plant for the university in accordance with plans and speci-

fications. Certified check for \$300 must accompany each bid.

Heating Apparatus, etc.—W. J. Edbrooke, Washington, D. C., will receive sealed proposals until August 13th for all the labor and materials and fixing in place complete the low pressure steam heating and mechanical ventilating apparatus for the extension of the Bureau of Engraving and Printing Building in accordance with drawings and specifications.

Hoisting Engine, etc.—T. H. Gorday, Newport News, Va., wants manufacturers' prices on a portable hoisting friction engine with boiler.

Hoisting Machinery.—The T. L. Fossick Co., Sheffield, Ala., will purchase hoisting machinery.

Lath Machines.—McDowell, Barnett & Co., Campobello, S. C., will want lath machines.

Lath Machines.—The Novelty Woodworking Co., Hickory, N. C., will probably want lath machines.

Lath Mill.—J. L. Poling & Co., Parsons, W. Va., will purchase lath mill.

Lathes.—M. F. Morris, Griffin, Ga., will probably want lathes.

Laundry Machinery.—J. C. Harman, secretary, Tenuille, Ga., wants outfit for a steam laundry.

Machine Shop.—The Hanover Foundry & Machine Co., Hanover, Pa., will need full outfit for machine shop.

Mineral Waters.—Gruffyd & Jones, Avon Park, Fla., wants addresses of manufacturers of machinery for making aerated waters and various soft drinks.

Oil Mill.—H. C. C., care of MANUFACTURERS' RECORD, desires information on the most improved method of refining cottonseed oil and addresses of manufacturers of machinery for same.

Phosphate Mining and Works.—G. A. Hanson, Tampa, Fla., desires prices on machinery for phosphate mining and works.

Piping.—Hartzell & Caldwell, Guyandotte, W. Va., will want piping.

Piping, Pumps, etc.—The Mannington Water Supply Co., Mannington, W. Va., wants quotations on piping, pumps, fire-plugs, etc.

Planer.—J. L. Poling & Co., Parsons, W. Va., will purchase a planer.

Planer and Mather.—The Cole Manufacturing Co., Newnan, Ga., wants a planer and mather.

Planing Mill.—The Cumberland Manufacturing Co., Harriman, Tenn., will want planing-mill machinery.

Printing Press.—The Blakey Printing Co., J. S. Drakeford, secretary, Charlotte, N. C., will purchase a cylinder printing press.

Pulleys, Shafting, etc.—Hartzell & Caldwell, Guyandotte, W. Va., will want pulleys, hangers and shafting.

Pump.—Edward McDowell, Spartanburg, S. C., wants a horizontal steam plunger pump.

Pump.—Hartman & Steavens, Kensington, Ga., need a steam force and suction pump.

Pumps.—G. A. Hanson, Tampa, Fla., wants prices on pumps for dredging phosphate deposits.

Quarrying.—The T. L. Fossick Co., Sheffield, Ala., will purchase quarrying machinery.

Rails, etc.—The Middle Georgia & Atlantic Railroad Co. is ready to buy rails, etc. Arthur Pew, chief engineer, Savannah, Ga., can be addressed.

Renovator.—A. M. Baker, New Berne, N. C., wants an outfit for renovating feathers.

Rolling Stock.—The Hearne & Brazos Valley Railroad Co., H. K. Davis, general manager, Hearne, Texas, will receive figures on rolling stock for its railroad.

Rolling Stock.—The Middle Georgia & Atlantic Railroad Co. is ready to purchase rolling stock. Arthur Pew, chief engineer, Savannah, Ga., can be addressed.

Roofing, Siding, etc.—Allen & Thompson, Thomaston, Ga., will want 17 squares of Lenox tin, 70 squares iron or steel roofing, also a lot of siding.

Saw.—W. B. Hester & Bro., Elizabethtown, N. C., will need a saw.

Shafting, etc.—Allen & Thompson, Thomaston, Ga., will want about 40 feet of three-inch shafting, couplings, etc.

Shingle Machine.—Hartman & Steavens, Kensington, Ga., need a shingle machine.

Shingle Mill.—J. L. Poling & Co., Parsons, W. Va., will purchase shingle mill.

Spring Manufacturers.—W. E. Cole, Natchez, Miss., wants addresses of clock-spring manufacturers.

Stone Working.—The T. L. Fossick Co., Sheffield, Ala., will purchase stone-working machinery.

Wood Splitter.—Henry Spann, Mayesville, S. C., wants a wood splitter.

Woodworking Machinery.—The Lee Manufacturing Co., A. L. Gardner, secretary, Franklin, Va., will want full outfit of machinery for the manufacture of sash, doors and blinds and all kinds of ornamental building material.

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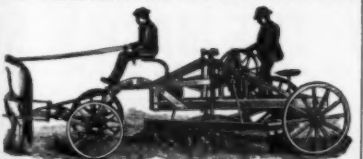
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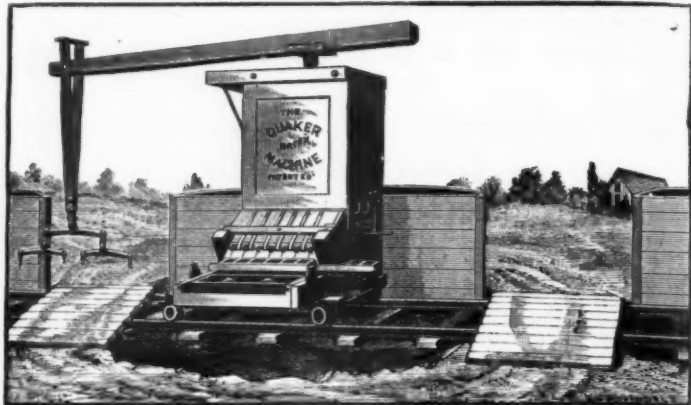
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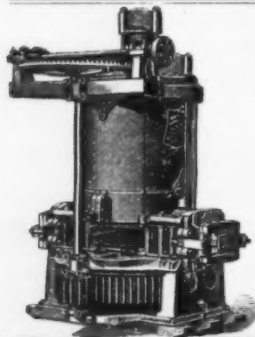
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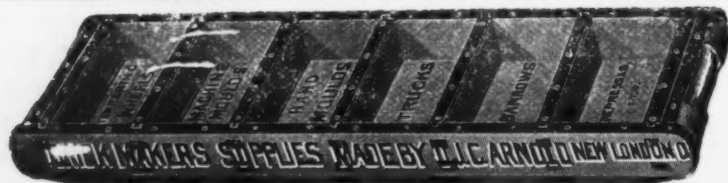
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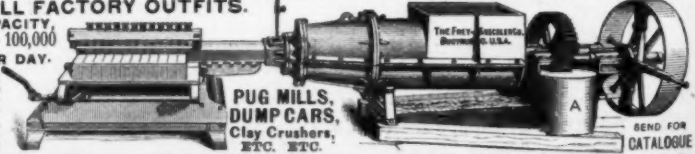
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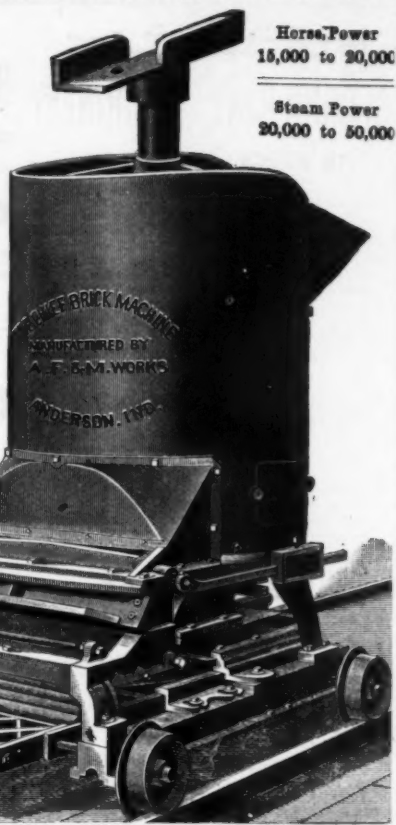
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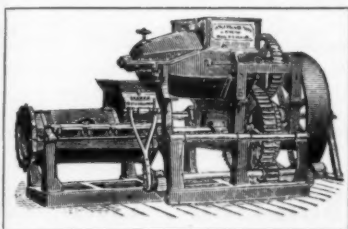
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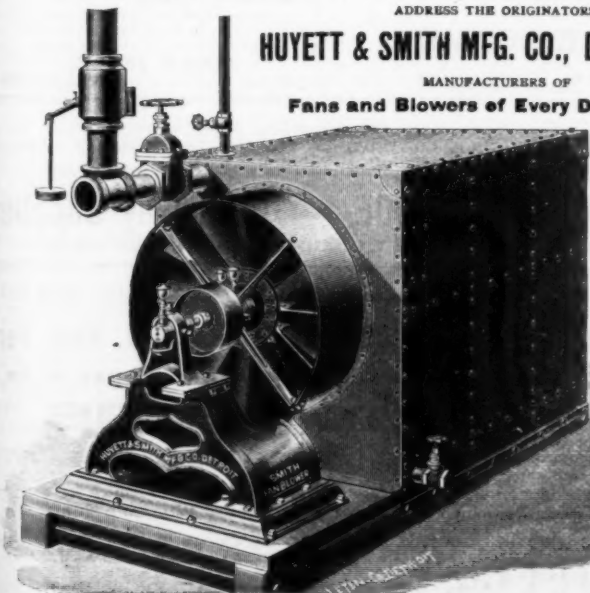
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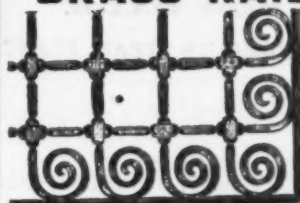


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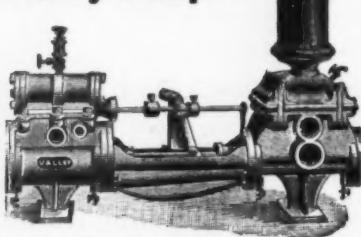
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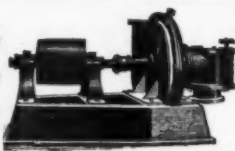
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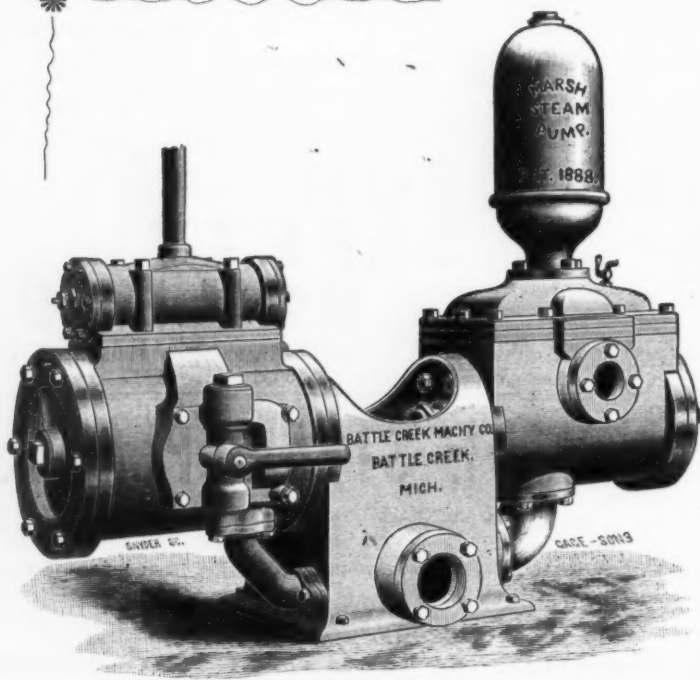


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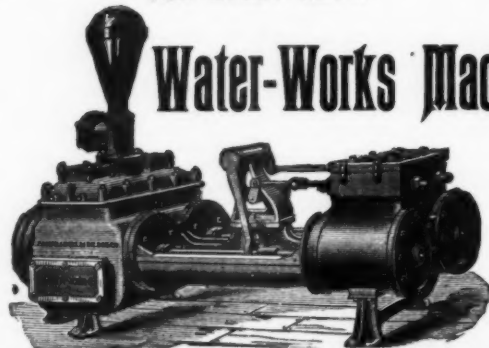
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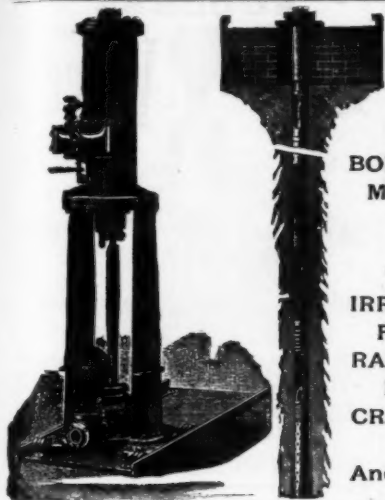
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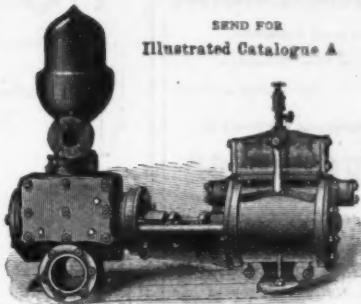


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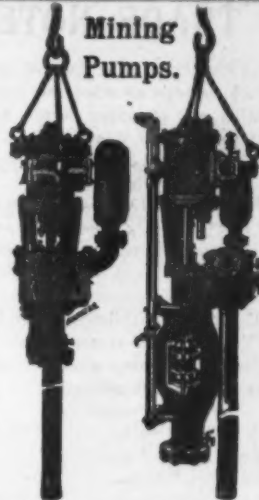
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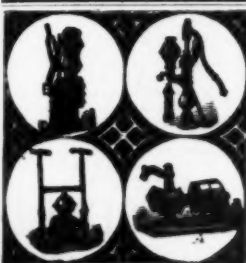
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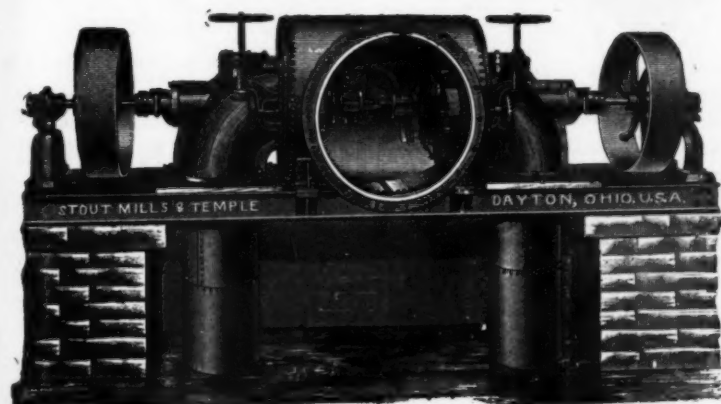
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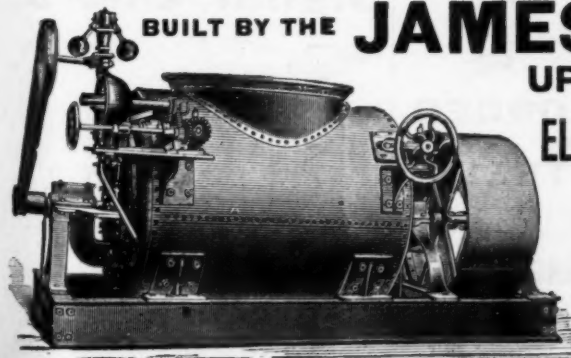
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"Best open draught arrester in the world" Delivered Free in any part of the U. S. on receipt of price, this advertisement, and name of paper.

Insist on getting this arrester, and if your dealer can't supply you, send for circulars and prices.

JESSUP BROS., Sole Manufacturers, AUGUSTA, GEORGIA.



Pat. Feb. 16, '06.

TRADE NOTES.

CROOK, HORNER & Co., of Baltimore, Md., have been awarded the contract for heating and plumbing in the new hotel being erected at Winston, N. C., by the West End Hotel & Land Co.

FIFTY-FIVE THOUSAND handles of different length, varying from four to seven feet, were recently turned at the Jarvis Handle Works in 18 days of nine and a-half hours, each upon two gauge lathes built by the I. E. Merritt Machinery Co., of Lockport, N. Y. This is an average of 161 per hour for each lathe on a mixed lot of broom, rake, fork and others handles.

A NEW catalogue has just been issued by Messrs. C. W. Raymond & Co., Dayton, Ohio, for the use of manufacturers of pressed and ornamental brick, terra cotta, etc. It contains about 200 new and elegant designs for ornamental brick, as well as many rules and hints for making pressed brick, which cannot fail to be of value to manufacturers of clay products. It will be sent free to manufacturers only.

COTTON machinery, used but in good working order, consisting of 36-inch cards with 18 inch doffers, fast combs, self strippers, well clothed; 12 railway heads with first-class eveners, 2 doubler heads with 54 cards running into each head, for sale by Davol Mills, Fall River, Mass. See advertisement page 48.

June, July and August.

The most charming Summer Resorts, of which there are over three hundred choice locations, are to be found in Wisconsin, Iowa, Minnesota, South Dakota and the Peninsula of Michigan along the lines of the Chicago, Milwaukee & St. Paul Railway. Nearly all are located near lakes which have not been fished out.

These resorts are easily reached by railway, and range in variety from the "full dress for dinner" to the flannel-shirt costume for every meal.

400,000 Acres of Timber Land in One Body.

ATLANTA, Ga., August 3, 1897.

Four hundred thousand acres of pine timber land in one body, under the control of one man! Have the readers of the MANUFACTURERS' RECORD often heard of such a memorandum? Nevertheless, there is a gentleman in Atlanta who controls such a tract of land practically in one body. What he intends to do with it he does not himself know yet, but is in possession.

The land lies in the far westward handle, or neck of Florida, as it runs along under the base of Alabama. This body of land, capable, it is said, of yielding from 3,500 to 5,000 feet of pine timber per acre, begins at the beautiful Bay of St. Andrew's—St. Andrew's Bay (where a great city might be built)—and stretches up across the neck to the Alabama line. Below and washing it is the Gulf of Mexico, where ships might ride to Southern ports. To the west are the markets and ports of Pensacola and Mobile, and New Orleans not very far distant. Above are the coal and iron fields of Alabama. To the east are Tallahassee, Jacksonville and the Atlantic on an air line railroad.

The owner of this immense property talks of forming a syndicate and building a town at St. Andrew's Bay. Then he talks of syndicating and marketing the lumber. One railroad, the Pensacola & Atlantic, from west to east, already runs through the property. Another road which would be short north and south from St. Andrew's to a point across the Pensacola & Atlantic or the Alabama midland, which runs to Montgomery, would open the property. This road the owner is anxious for. It would open to the Alabama coal and iron fields.

Then there is talk among some Atlanta tobaccoists of syndicating and raising an immense supply of Spanish or Cuban tobacco upon the property, for which the land is especially adapted, and then the owner speaks of selling the tract in a body at low figures. It is barely possible that such a body of land can remain unbroken. Judge C. H. Strong, of Atlanta, can give particulars.

HUGH C. MIDDLETON.


The COLLIAU PATENT
Cupola Furnace.
Adapted to all Foundries,
The Most Economical,
The Lowest in Price.
MANUFACTURED EXCLUSIVELY BY
BYRAM & CO.
DETROIT, MICH.



LIGHTNING WELL-SINKING MACHINERY MANUFACTURERS.
Hydraulic, Jetting, Revolving, Artesian, Diamond Prospecting Tools, Engines, Boilers, Wind Mills, Pumps, Encyclopedias, 1,000 engravings, Earth's Strata, Determination quality water, mail, etc.
The American Well Works,
Aurora, Ill.,
11 & 13 S. Canal
St.,
Dallas, Texas.



WELL DRILLING MACHINERY,
MANUFACTURED BY
WILLIAMS BROTHERS,
ITHACA, N. Y.,
Mounted and on Sills, for
deep or shallow wells,
with steam or horse
power.
Send for
Catalogue.
ADDRESS
Williams Brothers
ITHACA, N. Y.



The Plumbers' Favorite
Haines, Jones & Cadbury Co.'s
IMPROVED
Blast Furnace.
Will melt 10 pounds of solder
in six minutes.
Haines, Jones & Cadbury Co.
1136 Ridge Ave
PHILADELPHIA,
PA.



McShane & Bell Foundry
First Iron and Steel Castings Made in Order.
Manufacture those celebrated
Bells for Towers,
Clocks, Court-Houses,
Cotton Mills, Facto-
ries, etc. Prices and cata-
logues sent free. Address
H. McSHANE & CO.
Baltimore, Md.
Mention this paper.

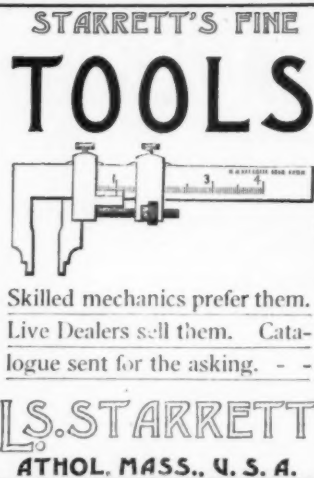


ANTI-MOTH.
Certain; sure; no lie or trick; we don't believe
in either.
We tell the truth, you do the rest (no insinua-
tion intended, dear reader).
Red Cedar Moth Proof Chests; handsomely
made.
Write us for a \$12 chest, delivered free of
charge in any part of the United States; that is,
"we pay de freight." This offer for immediate
acceptance only.
HARRY MYERS MFG CO.
NASHVILLE, TENN.

Established 1867.
E HARRINGTON, SON & CO.
Works and Office,
N. 16th St. & Penna. Ave., Phila., Pa., U.S.A.
Manufacturers of a full line of

Iron Working Machinery.
INCLUDING
Extension and Gap
Lathes, Planers with
Quick Return, Drills, &c.
Hand Power Elevators
with Patent Brake, Double
Chain Screw Hoist,
Overhead Tramway,
with Switch, Turntable
and Geared Truck.

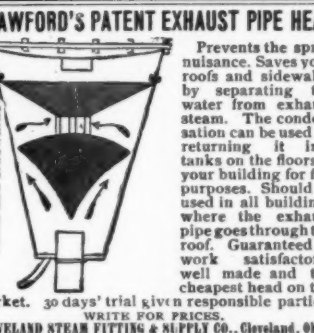
Gear Cutting a Specialty: Send for estimates.
Represented by J. Q. MAYNARD, 25 Cortland
St., N. Y.; C. E. KIMBALL, 92 Oliver St., Boston;
W. BUCHNER, 222 Main St., Cincinnati.

STARRETT'S FINE
TOOLS

Skilled mechanics prefer them.
Live Dealers sell them. Cata-
logue sent for the asking. - -
L.S. STARRETT
ATHOL, MASS., U. S. A.

PENNSYLVANIA GLOBE
GAS LIGHT CO.
IMPROVED ROYAL
ELKINS GAS MACHINE
THE BEST IN THE
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523 28 ST. 122 ST.
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CHICAGO
FOR SALE
CONTRACTORS FOR LIGHTING CITIES
AND TOWNS WITH THEIR REMOVED SYSTEM OF
SELF-GENERATING GAS LAMPS OVER 5000 IN USE




STICKNEY OIL BURNER
For Heating Soldering Coppers.
Saves insurance premiums, decreases fire risks.
Economical and reliable. Always ready for use.
Write for circular D and special information.
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CRAWFORD'S PATENT EXHAUST PIPE HEAD

Prevents the spray
nuisance. Saves your
roofs and sidewalks
by separating the
water from exhaust
steam. The conden-
sation can be used by
returning it into
tanks on the floors of
your building for fire
purposes. Should be
used in all buildings
where the exhaust
pipe goes through the
roof. Guaranteed to
work satisfactory,
well made and the
cheapest head on the
market. 30 days' trial given responsible parties.
WRITE FOR PRICES.
CLEVELAND STEAM FITTING & SUPPLY CO., Cleveland, Ohio.

The Indispensable LATHE DOGS.


DROP FORGED
FROM
BAR STEEL.
One set of three does the work of twelve com-
mon dogs. You cannot afford to be without them.
Send for Circular and Prices.
PALMER, CUNNINGHAM & CO.
LIMITED
607 Market Street, Philadelphia, Pa.

SUCCESS
Water Wheel.

This Wheel is strong and durable. Excelled
all other wheels in the great trial tests. Is in use
all over the nation. I also make a specialty of
HEAVY GEARING & MACHINERY
For Paper, Cotton and Grist Mills.
S. MORGAN SMITH, York, Pa.

BURNHAM'S NEW IMPROVED
STANDARD TURBINE.

It gives on either
a Vertical or
Horizontal
Shaft more
power for its
price, yields a
greater
percentage of
water used,
either with full
or part gate
drawn, and is
the simplest
constructed
and best fin-
ished Wheel
ever offered for
sale. Send for
catalogue to
**BURNHAM
BROS.**
YORK, PA.

The Motor of the 19th Century.
2 to 40 H. P.

Can be used ANY PLACE,
to do ANY WORK, and by
ANY ONE.
No Boiler! No Fire! No
Steam! No Ashes! No
Gauges! No Engines! No
Danger! No Smoke!
A perfectly safe motor for all
places and purposes. Cost of
operation about one cent an
hour to each indicated horse-
power. For circulars, etc.,
address **CHARLES GAS**
ENGINE CO., P. O. Box 240, Sterling, Ill.

GAS and GASOLINE ENGINES
STATIONARY and PORTABLE. All Sizes.

Dwarfs in Size, but
Giants in Strength.
Expense one cent an
hour per horse power
and requires but little
attention to run them.
Every Engine
Guaranteed. Full
particulars free by mail.
Mention this paper.
VAN DUZEN
GAS & GASOLINE ENGINE CO. Cincinnati, O.

**DON'T BUY AN
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Until you have seen our circulars. Engines com-
plete from 5 to 110 horse power, both Vertical
and Horizontal, at prices below those of other
reputable makers. 1400 in use. Boilers of
every style. Automatic Engines for Electric
Lights. Centrifugal Pumping Machinery for
Drainage or Irrigation. Established 32 years.
Perfect satisfaction guaranteed.
Ask for Circular M and address
Morris Machine Works
BALDWINVILLE, N. Y.

POWELL'S PATENT
Signal Oilers

The Best for Dynamoes and
High-Grade Engines.
**AUTOMATIC,
DURABLE,
EFFICIENT.**
Every
Oiler **GUARANTEED.**
Your Dealer ought to have
them.
MADE BY
THE WM. POWELL CO.
CINCINNATI, OHIO.

Southern Real Estate Interests.

Southern Real Estate Directory.

For the convenience of the many readers of the MANUFACTURERS' RECORD it has been deemed advisable to collect under this head a complete and reliable list of the leading Realty Agencies of the Southern States. The value of such a list for the purpose of Ready Reference will immediately become apparent to all who are interested in the growth of this section.

ALABAMA.

BESSEMER—Ohas. F. Hard & Co., Real Estate and General Commission, Room 1, Charleston Block.

ARKANSAS.

LITTLE ROCK—Brown & Lewis, Real Estate Dealers and Investment Agents. Write for information about Little Rock and Ark.

GEORGIA.

AUGUSTA—Clarence E. Clark, Real Estate, Stocks and Bonds. Loans Negotiated.

KENTUCKY.

CATLETTSBURG—Standard Land Co., Brokers in Mineral Lands. Correspondence solicited.

NORTH CAROLINA.

CHARLOTTE—Brem & Co., 100 City Lots, Farm Lands and Water Powers.

OLD FORT—O. H. Blocker, Real Estate, Timber and Mineral Lands.

OXFORD—Rice & Lassiter, Real Estate, Stocks and Insurance.

STATESVILLE—W. G. Lewis, Real Estate Agent. Correspondence Solicited.

N.WILKESBORO—Am. House M. & T. Land Co., Ath. Cap. \$5,000,000 Shrs. \$10. Town bldg.

WINSTON-SALEM—Johnson & Jones, Real Estate, Insurance, Stocks.

WINSTON-SALEM—Cattlin & Kautner, Real Estate and Stocks.

WINSTON-SALEM—P. C. Humphrey, Real Estate, Insurance, Stocks and Bonds.

SOUTH CAROLINA.

GREENVILLE—Browning & Co., Real Estate, No. 60 Court Square.

VIRGINIA.

BERRYVILLE—N. J. C. Moore & Co., Real Estate Agents.

BASIC CITY—A. B. Carter, Real Estate and Insurance Agent. Correspondence solicited.

BUENA VISTA—Guyer, McClure & Co., Real Estate, Stocks and Bonds. Write for pamphlet "Buena Vista Securities."

BUENA VISTA—Blackburn, Davis & McGivray, Real Estate Stocks and Insurance.

BUENA VISTA—Huffman, Gleason & Co., Real Estate Brokers. Correspondence solicited.

BUENA VISTA—A. F. Moore & Co., Real Estate and Stock Brokers.

BUENA VISTA—Buchanan & Anderson, Real Estate Agents and Stock Brokers.

BUENA VISTA—C. H. Jordan & Co., Real Estate, Stocks and Insurance.

CHARLOTTESVILLE—J. C. McKennie & Co., Real Estate and Insurance Brokers.

CHARLOTTESVILLE—L. D. Aylett & Co., Real Estate, Stocks and Bonds. Correspondence solicited.

CHARLOTTESVILLE—Jas. W. Dolin, Real Estate. Send for Dolin's Land Advertiser.

ELKTON—Borum & Fringle, Real Estate, Stock and Insurance Agents.

FARMVILLE—Horndon, Hasell & Co., R. E. and Insurance. Members Va. R. E. Ex.

FORT DEFIANCE—McCue, Parkins & Co., Real Estate. Correspondence solicited.

FRONT ROYAL—Dorsey, Campbell & Co., Real Estate and Stocks, No. 1 Court Green.

LURAY—Wright, Leyburn & Co., Real Estate, Stock & Ins. Correspondence solicited.

NEWPORT NEWS—Robinson & Miller, Real Estate Agents. Correspondence solicited.

NEWPORT NEWS—Braxton, Chandler & Marye, Civil Engineering, Real Estate and Insurance, Washington Ave. & 30th St.

NEWPORT NEWS—C. E. Neils & Bro., Real Estate and Insurance Agents. Representing \$150,000,000.

NORFOLK—J. H. Marshall & Co., Real Estate Brokers, 113 Main Street.

NORFOLK—A. W. Cornick & Co., Real Estate Agents, 102 Main Street.

ROANOKE—H. Chipman & Co., Real Estate, 109 Salem Avenue. Call and see us.

ROANOKE—Simmons, Carpenter & Tinsley, Real Est. Brokers, 108 Jefferson St.

ROANOKE—Dupuy & Talliferro, Real Estate & Insurance Agents, 11 Campbell St.

ROANOKE—Southwest Virginia Mineral, Timber, Farm, Coal and Iron Ore Lands. J. A. Dalby, Sons & Co. Correspondence sol.

ROANOKE—C. O'Leary & Co., Real Estate Agents, 9 Campbell Street.

ROANOKE—Gray & Boswell, Real Estate Brokers, 110 Jefferson Street.

ROANOKE—Roanoke R. E. Co. (Chartered), R. Estate Brokers. Correspondence solicited.

ROANOKE—Iron Belt Building & Loan Association, Fitzhugh Lee, President.

ROANOKE—Wilbur S. Pole & Co., Buy, Sell and Exchange Real Estate.

SALEM—Allen & Tompkins, Dealers in Mineral and Timber Land.

WINCHESTER—Hancock Bros., Real Estate and Insurance Agents, Court House Ave.

WINCHESTER—Hansbrough & Co., Real Estate and Stock Brokers.

WEST VIRGINIA.

CHARLESTOWN—Washington & Alexander, Real Estate Agents.

CHARLESTOWN—Davenport & Hallerle Members Real Estate Exchange. Negotiations conducted.

JNO. C. ROBERTSON,

18 Times Building,

RICHMOND, VA.

Large tracts of timber and mineral lands for sale throughout the South. Correspondence solicited.

Magnificent Lots

In Asheville Heights, outside city limits of Asheville, N. C., the noted health resort all year. 55,000 tourists annually, and nearly all visit this property for the fine view. Electric Street Railway is surveyed, and will soon be built to top of the peak. These lots are for sale on easy terms. Will take good property in part payment.

C. N. WEBSTER & CO.

WEST FARMINGTON, O. or ASHEVILLE, N. C.

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IN THE

SOUTH.

Parties desiring to interest Eastern investors in good Southern enterprises are invited to call at my office or correspond with me.

W. P. RICE,

Room 208 (Washington Building),

No. 1 Broadway, New York City.

FOR SALE CHEAP.

24 in. x 36 in. Watts Campbell Corliss Engine, second-hand, in first-class order; immediate delivery. Apply the WATTS CAMPBELL CO., 166 Ogden Street, Newark, N. J.

FOR SALE

One Henry Martin Brick Machine

In fair condition, capacity thirty thousand daily. For particulars address

"BRICK MACHINE,"

Care Manufacturers' Record.

FOR SALE.

135 H. P. Tubular Boiler.
125 H. P. Engine, T. M. Nagle make, good as new.
130 H. P. Upright Boiler.
120 H. P. Engine, with Shafting, Pulleys and Hangers.
1 Heavy Segment Re-Sawing Machine, Connell & Dangler make.
All will be sold at a bargain. Address

F. STUTZMAN,

Foot of Campbell Street, WILLIAMSPORT, PA.

Crowder's and King's Mountain

FOR SALE.

THIS HISTORIC MOUNTAIN, with about 25,000 ACRES OF LAND is now on the market.

HERE IS WHAT WE HAVE.

Some nice residences in the beautiful town of King's Mountain, also a large number of building lots. This town is on the Richmond & Danville Railroad.

Three miles from here is the lofty pinnacle of King's Mountain; eight miles brings us to the Battle Ground with its beautiful monument. This mountain lies parallel with the great belt of minerals, which run from Virginia to Georgia, and on it we have a large amount of extra fine MARBLE of all colors.

ROOFING AND PENCIL SLATE in quantities not to be soon exhausted. A large amount of FLAGGING SLATE and some fine quarries of Building Rock.

Gold is found in paying quantities in a number of places. At two points there have been mills, and much Gold has been made, also Barytes pure, and with Gold, Silver and Lead.

There is running through this property for more than ten miles a MANGANESE VEIN of great width, analyzing in some places on the top of the ground 47% of metal.

We have two well-located points for Iron and Steel Plants with good ore enough to run them for all time, and in less than one mile from these points are Limestone and Fire-Proof Clay in very large quantities.

We also have three good Gold Mines and other Mineral Lands for sale. Address

REV. P. R. ELAM,

King's Mountain, Cleveland County, N. C.

TO

Fruit & Vegetable Canners

The cheapest, most efficacious and economical system for putting up high standard goods is the

MUDGE

PATENTED PROCESS

Large Plants Furnished, also Family Processors on the Same Principle.

STATE RIGHTS FOR SALE FOR EITHER OR BOTH PATENTS.

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210 E. Lexington St., Baltimore.

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The Jellico Tannery has 28 acres of land, south of and adjoining the Knoxville & Ohio Railroad, which they will deed any part of, or all, to any manufacturing plant, for manufacturing purposes, for one dollar per acre.

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JELICO, TENN.

CHERAW, S. C.

Has a population of between 1,200 and 1,500, constantly increasing; one of the healthiest and most beautiful towns in the State; on the great Pee Dee; excellent water power all around it; fine schools; churches of every denomination; literary lyceum and library; eligible town lots; fine timber lands near it; railroads from commercial centers; a delightful place to live. For particulars, address the Intendant.

THE FULTON COTTON MILL

AT PUBLIC SALE.

Thursday, Aug. 20, 1891, at 2 o'clock P. M.

On the Premises,

Cor. Duke and Lemon Sts., Lancaster, Pa.

A lot of land with improvements, consisting of a two-story and attic brick cotton mill 97 feet by 50 feet, with one-story boiler room 2 1/2 feet by 2 feet, one-story machine shop and engine room 48 by 20 feet, a one-story picker room 30 by 30 feet, a one-story mixing room 10 feet by 50 feet, thereto attached; also a new one-story brick cotton mill 14 feet by 53 feet. These buildings contain the following machinery: Two lappers, English make, one 36-inch and one 30-inch; ten 36-inch cards, with four strippers, four workers, 20-inch doffer, licker-in and stripper rolls, Bridesburg make; two railway heads three heads drawings, two speeders, 84 spindles each; nine spinning frames, 204 spindles each; one spinning frame, 256 spindles; one spinning frame, 120 spindles; eight reels, five horizontal spoolers, four bobbin-winding machines, two English warpers, one slasher, English make; hydraulic press, one calendaring machine, one 80 horse-power steam engine, Corliss make; three boilers 30 horse-power each; one steam pump, six napping machines, 25 box looms, 63 plain looms, one lathe, one gear-cutter, shafting, belting, vices, about 700 feet of five-inch cast-iron steam pipe, &c.

Real estate will be sold first, then the machinery. Call on or address at Lancaster, Pa., EDWARD WILEY, Executor of Wm. M. Wiley, deceased.

FOR SALE.

One coarse and two fine MAYO SPEEDERS, built by Bales & Jencks. In perfect condition. Can be seen running. For further particulars address

JAMES S. GARY & SON,

106 and 108 W. German St., BALTIMORE, MD.

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PROSPECTUS AND FREE OPINIONS

OF

THE SECRETS OF CANNING,

A PRACTICAL BOOK FOR CANNERS.

J. MURPHY & CO., Baltimore, Md.

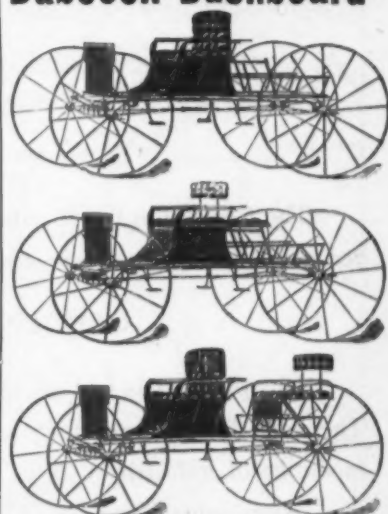


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Employers' and Public LIABILITY.

Boiler Inspection AND INSURANCE.

Babcock Buckboard



THREE CARRIAGES IN ONE.

Ask your dealer for our work or write to

H. H. BABCOCK CO., Watertown, N. Y.

Also 406-412 Broome St., New York City.



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For 15 years all users of typewriters have felt the necessity of their being improved. You will find in the SMITH PREMIER TYPEWRITER the latest and best. All the essential features greatly perfected and important improvements. The best inventive talent and mechanical skill have been employed to produce a machine of Greater Durability, Excellence of Design and Special Features. We claim, and inspection and trial prove it, the Most Durable Alignment, Best Running and Best Work. All type cleaned in 15 seconds without setting hands. Send for catalogue. THE SMITH PREMIER TYPEWRITER CO., Syracuse, N. Y., U. S. A.

COVINGTON
THE **GEM** OF THE MOUNTAINS

1200 Feet above the Sea.
Pure Mountain Air. No Mosquitoes.
No Malaria.

THE MONT HOUSE Will open Mar. 1st 1891.
Heated by Steam.
Lighted by Electricity.
All modern improvements.

CHEAP IRON.
CHEAP COAL.
CHEAP TIMBER.
CHEAP LIVING.

If you want to be thrifty and live to a ripe old age come to -
Covington, Va.

C. & O. SOLID VESTIBULE LIMITED TRAINS DAILY

ANNOUNCEMENT.

The Covington Improvement Company has acquired over 700 acres of land contiguous to the town of

COVINGTON.

This property is laid off in Residence and Industrial Lots. The most liberal provisions have been made for the accommodation of industries. It is useless to repeat the details of the many advantages of Covington and the prospective enhancement in values of the property of the

Covington Improvement Company.

Suffice it to say, Covington is in the heart of the richest Ore deposit of Virginia, and nearer to the Coal and Coke of West Virginia than any other point on the Chesapeake & Ohio Railroad.

There are now located and under construction in Covington the following enterprises:

A 125-Ton Blast Furnace, employing.....	150 men.
Rolling Mill, employing.....	125 "
Foundry and Machine Shops, employing.....	75 "
Patent Roller Flouring Mill, employing.....	15 "
40,000 Daily Capacity Brick Plant, employing.....	30 "
Lumber and Planing Mill.....	15 "
Steam Laundry—one of the best in Virginia—employing 6 girls.	

One National Bank in successful operation with a line of Individual Deposits of over One Hundred and Thirty Thousand Dollars (\$130,000.) Only in operation about (4) four months.

The Hot Springs Branch of the Chesapeake & Ohio will be completed by July 1st, 1891, making Covington the gateway to the

Hot, Warm and Healing Springs,

where several millions will be spent in the next few years developing these three famous watering places, with the assurance that the "Camden" road will be built within fifteen months, giving a direct line from Pittsburg to the celebrated Ore fields of "Potts Creek," and making

Covington a Great Center for Manufacturing

the raw material (lumber and minerals) lying in the immediate vicinity, and penetrated by the "Camden" and Chesapeake & Ohio Railroads. No other point in the State of Virginia is so favored for

Locating Industrial Enterprises,

and all investments made at Covington will yield handsome profits in the near future.

MINNEAPOLIS, VA.



Minneapolis is Under the Management of GEN. THOMAS L. ROSSER, Builder of the Northern Pacific and Canadian Pacific Railways.

Resources.

Coal and Iron, both in Inexhaustible Quantity and Unexcelled Quality, In juxtaposition.
In the Center of a District Composed of Five Counties, Containing More Timber Than Minnesota and Wisconsin Combined.

Advantages and Attractions.

A Healthy and Beautiful Situation in a Valley 2,000 feet above Sea Level, Surrounded by Mountains.

Encircled by a Large Bold Stream, ample for Water, Drainage and Power.

The Crossing Point of the Norfolk & Western and the Three C's, the Future Great East and West and North and South Trunk Lines.

INDUSTRIES FROM ALL SECTIONS

Are now Seeking a Location at Minneapolis on Account of the Minimum Cost and Maximum Quantity and Quality of Raw Materials, the Fine Transportation Facilities and the Healthfulness and Beauty of the Site.

JOHN M. WHITE, Treasurer,
CHARLOTTESVILLE VA.



ELKTON, VIRGINIA.

IN THE WORLD-FAMED SHENANDOAH VALLEY.

Presents to-day the Best Opportunities for Safe and Profitable Investments to be Found in Virginia.

In one short year it has grown from a mere hamlet to a town of nearly 900 souls.

When factories now in course of construction are all in operation, at least 1,200 people will have their homes in Elkton.

Our industries are numerous and varied.

We do not depend on any one big concern to make or break us.

The immense TIMBER SUPPLY gives employment to a number of Saw Mills and Planing Mills and Lumber Yards.

We have also a Sash, Door and Blind Factory,

A Steam Bark Mill (under construction),

A New Roller Mill, 100 barrels daily capacity,
A Large Tannery,
Steam Brick Works,
A Cannery (contracted for),
Wagon and Spoke Factory (under construction),
A Large Cutlery Factory, nearly completed, which will employ at least 50 hands, and which will begin work in June.

Besides, are the various minor industries to be found in every town, such as Blacksmith, Harness, Wheelwright, Carpenter, Cabinet Makers, Tinnners, Plumbers, Etc., Etc.

A Water Company supplies pure Lithia Water through a complete system of pipes to all residences and stores desiring it.

RATES:

For Single Days, . . . \$2 to \$3
Weekly Rates, . . . \$9 to \$15
Monthly Rates, . . . \$25 to \$50
Special Rates to Ministers.



THE ELKTON HOTEL.

Rooms May be Engaged and
Prices Fixed by Applying to

C. P. WALTERMIRE, Manager.

June 22, 1891.

The Finest Hotel in Virginia, "THE ELKTON," is here. Run under the management of the Elkton Improvement Company.

Lighted by gas, supplied with pure lithia water in unlimited quantity, and with all modern conveniences.

Investors will find our property priced so as to insure profits.

NO FANCY PRICES have been asked, but values will be confined to ACTUAL WORTH.

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Thirty-five buildings already on the townsite.

Ten miles of streets graded.

Manufacturing sites will be donated and stock subscribed to such legitimate enterprises as may be advantageously located here.

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Her climate is of unsurpassed salubrity and healthfulness. Fresh water and mineral springs abound, and the 328 miles of water courses in Wilkes County furnish a water power of almost incalculable magnitude.

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OF WASHINGTON, D. C.

Office and Factory, No. 724 Eleventh Street, Northwest.

CAPITAL STOCK, \$100,000.

PAR VALUE OF SHARES, \$10.

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CHEMIST.

PROF. JAMES R. ROGERS, M. D., Ph. D.

THIS COMPANY was recently incorporated under the laws of West Virginia, and has purchased, and is preparing to continue on a larger scale, the business of the Brunswick Baking Powder and Windsor Flavoring Extract Co., formerly established in New York City and afterwards moved to Washington.

In addition to the manufacture of

THE PURE FOOD BAKING POWDER

and Flavoring Extracts, for both of which a high class of trade has been built up, this company owns old and tested private formulas, and will, in course of time, include in its manufacture a wide and varied line of Pure Food specialties, including the following:

Self-Raising Flour and Buckwheat, Farinaceous Foods, Custard and Curry Powders, Tomato and Mushroom Ketchups, Worcestershire, Yorkshire, Chutney, Windsor Soy, Celery, Fruit and other choice sauces; Salad Dressing, Marmalades, Sweet and Plain Pickles, Mince Meats, Preserves, etc.

The goods manufactured by this company will be put out in a thoroughly first-class and merchantable manner, sufficient to satisfy the most fastidious tastes. The package in which the Pure Food Baking Powder will be put up will be especially attractive, and is by all odds the handsomest in the market.

Honesty in quality and quantity is the company's watchword, and upon this platform it proposes to become food purveyors to that largely increasing class who are demanding honest weight, and absolute freedom from deleterious adulterants.

As an evidence of the undoubted merit and superiority of the Baking Powder and Flavoring Extracts this company will manufacture, it need only be stated that other makes, long on the market, have, in many instances, been displaced by them in the PRESIDENT'S MANSION and in the homes of many of the Cabinet Officers, as well as in many of the most prominent families of the Nation's Capital, and in a large number of the first-class hotels of New York, Washington and other cities, while the demand from grocers in these cities alone has far outgrown the supply, and made absolutely imperative the organization of a larger company to increase the capacity of the factory.

Hundreds of testimonials, certifying to the strength, purity and excellence of these goods, are in the possession of the company.

The formula from which this baking powder is manufactured was originated by a London chemist, and for years prior to its introduction in this country, was well and favorably known throughout Europe as the Zephyr Baking Powder. Many of the leading medical men of London have testified to its absolute purity, and for years the company offered a standing reward of \$1,000 if alum or any other deleterious substance could be found in its ingredients.

That there is an enormous profit in baking powder, is amply attested by the wonderful growth of business and tremendous dividends reputed to have been paid by the companies that manufacture the leading brands. It is an article of as universal necessity as salt, and the scope of operations is therefore practically unlimited. With the trade in hand, and in easy reach, the stockholders of the American Pure Food Company may be assured of future gratifying dividends.

The annexed newspaper clippings will throw some light on the pecuniary possibilities of the baking powder business:

From the New York Herald.

The making of baking powder seems to be a profitable business. The best conducted company in the United States, the Royal Baking Powder Company, made net profits of \$725,162 in 1887, the gross sales amounting to \$2,657,987. These facts became public as the result of a suit brought by one of the partners in the concern to restrain

Mr. J. C. Hoagland and his son and brother from drawing salaries amounting altogether to \$86,000 a year. In view of the great success of the company, it seems natural that the Hoaglands should be well paid for their work, but it is interesting to know that the Royal Baking Powder Company pays its president as much as the people of the United States pays theirs—\$50,000.

From the Washington Post.

Mr. Ziegler, of Brooklyn, was, until recently, the owner of forty per cent. of a baking powder business in that city. He had two partners, with whom he failed to agree, and, as they had the controlling interest, he sold out to them, receiving for his share, \$2,500,000. Those who know, say he sold cheap, but as he has already over \$8,000,000 invested in real estate and gilt-edge securities, besides a palatial residence, a yacht, some good horses, etc., it is probable he could stand it. Mr. Ziegler landed in Brooklyn twenty years ago, with a moderate capital, amounting to \$12.50. It looks as if there were profitable business in baking powders—something to make a man rise in the world, as it were.

A BLOCK OF ONLY 1,000 SHARES

Of the capital stock of the American Pure Food Company is offered for sale upon the specially attractive and accommodating terms of one dollar per share on subscribing, and one dollar each month thereafter till all of the amount is paid.

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Will be awarded in the order of subscription to subscribers, and will be received at the company's office, No. 724 Eleventh Street, N. W. Washington, D. C., and in Baltimore by Messrs. H. B. Whitely & Co., Bankers and Brokers, Calvert and German Sts.

Stockholders will have no personal liability beyond the par value of the shares.

The capital stock of the company has not been inflated for the purpose of speculation, as is too often the case, and as an evidence that the business thus being enlarged is a legitimate and permanent enterprise, the fact may be stated that the principal stockholders have entered into a formal agreement not to dispose of their stock for three years at least.

For the general standing of the company and its officers, reference is given to Bradstreets and Dunn's Commercial Agencies, also the Ohio National Bank, its depository.

The following blank form is offered for the convenience of those who wish to subscribe for a portion of the 1,000 shares now being offered:

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No. 724 Eleventh Street, N. W., Washington, D. C.

Gentlemen—Find enclosed New York exchange (check or money order) for \$....., covering payment of one dollar per share for..... shares of the capital stock in your company. It is agreed by me or us that the deferred payments are to be made by the first of each ensuing month till paid, and are to consist of one dollar for each share taken.

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Signature.....

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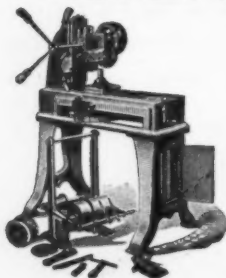
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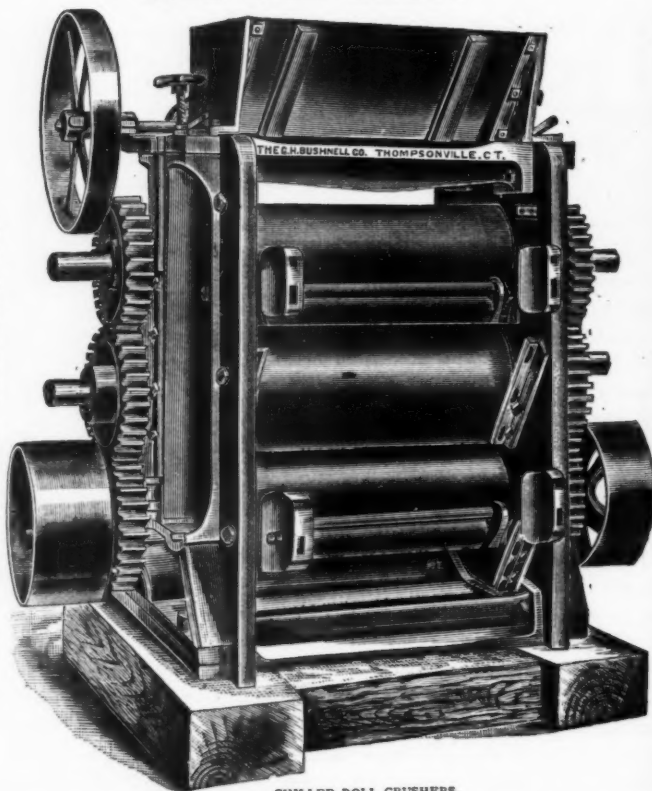
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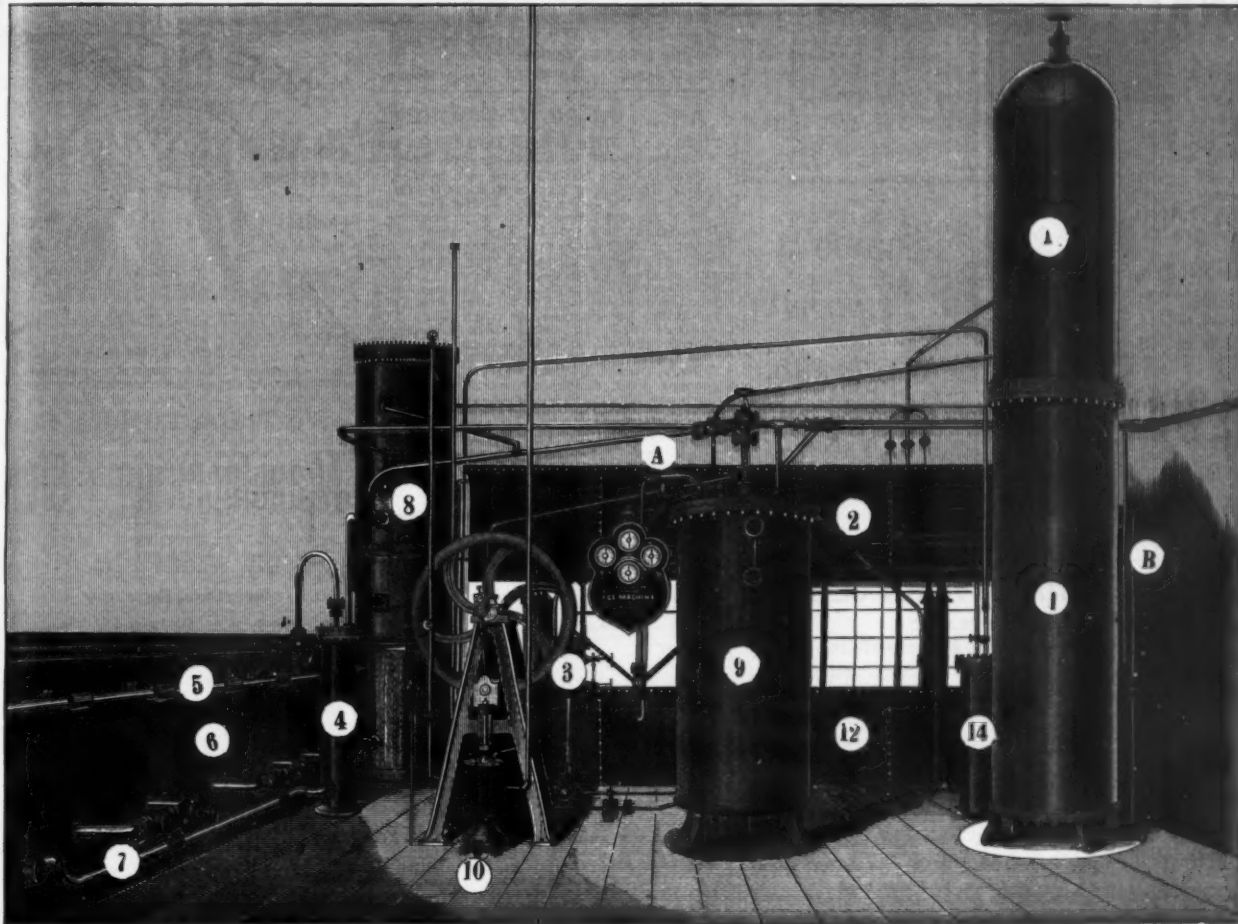
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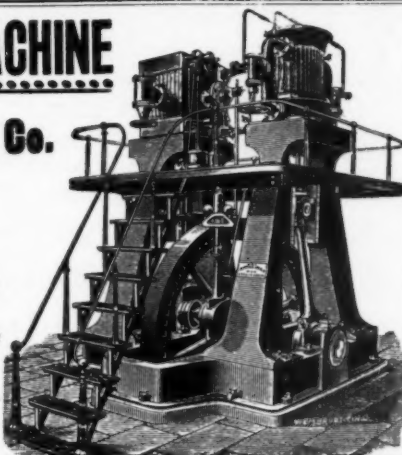
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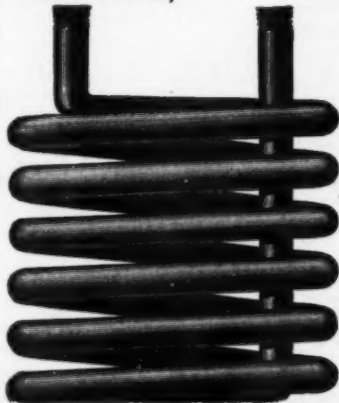
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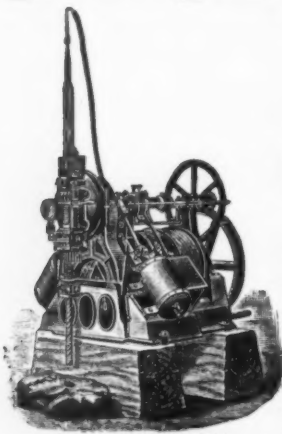
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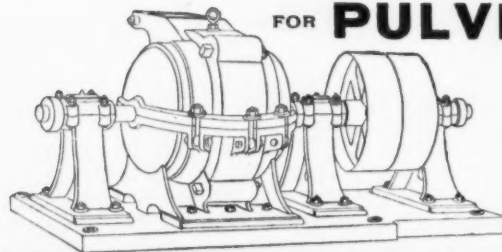
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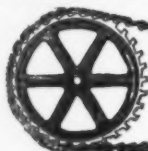
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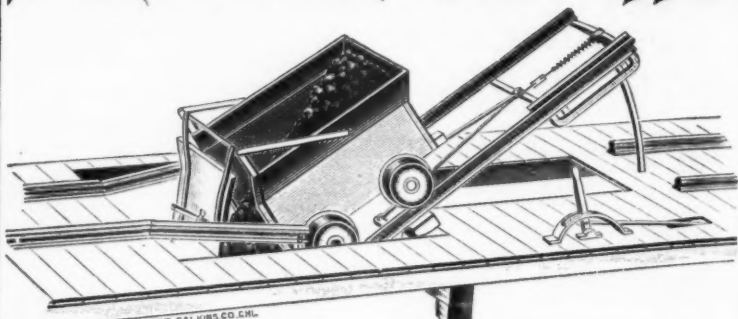
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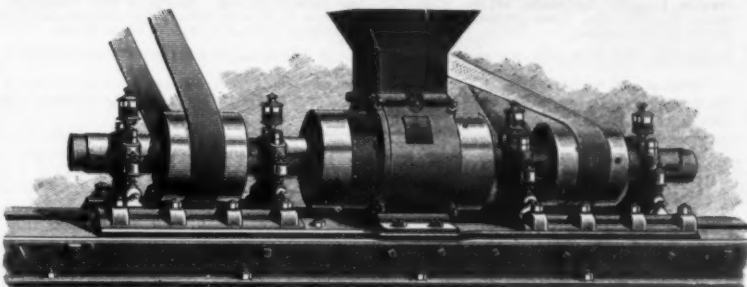
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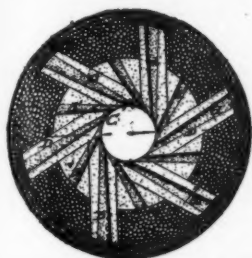
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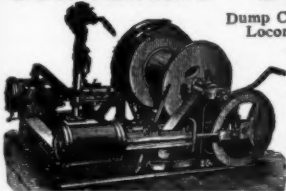
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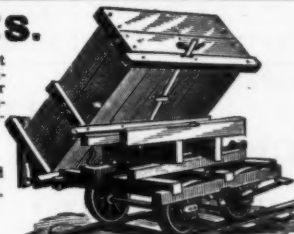
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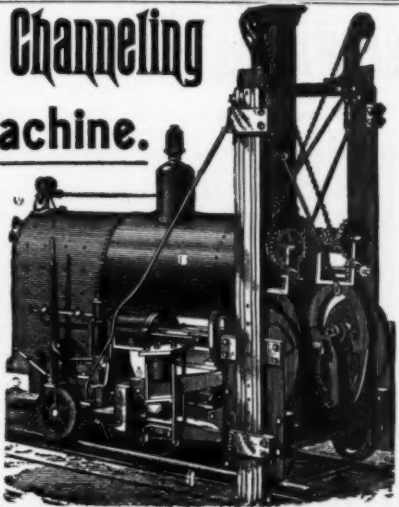
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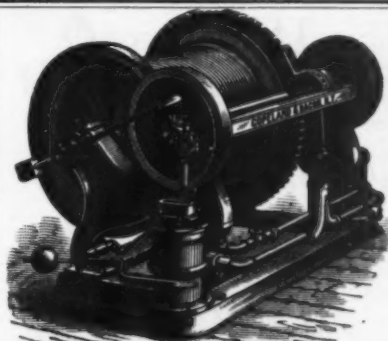
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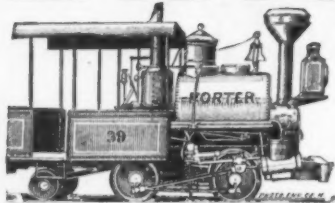
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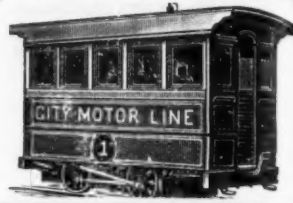
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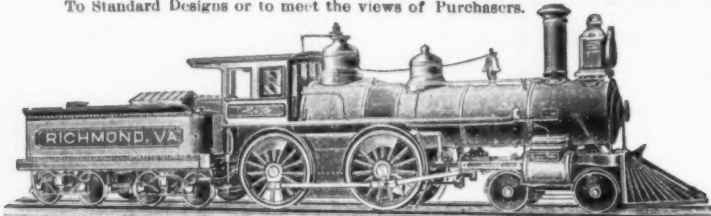


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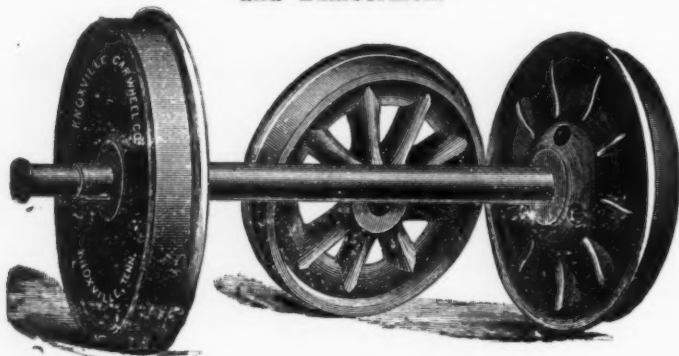
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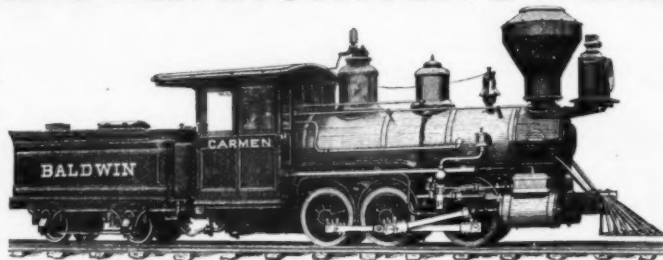
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Screw Stump Machine.
The only Stump Machine
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Wheels Grinding Wet a Specialty.

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Special Machines
for Railroads,
Bridge & Boiler
Makers, Contractors,
&c.



Read What a Michigan Miller Says of the Case Company.

WESTERN IRON MARKETS.

CINCINNATI, August 1, 1891.

Pig iron is going forward quite freely to consumers on existing contracts, partly for immediate use and to some extent in anticipation of a scarcity of cars hereafter.

There has been the usual active competition for the limited number of orders placed during the week, but only one or two transactions at very low price are reported, and these are not well authenticated. As most of the buyers are either absent on their vacations or taking a rest from buying iron at home, it has been suggested that all the sellers would do well to take a month off and give the market a chance to tone up.

There is but little change in the condition among the Southern coke furnaces. The higher grades of foundry, soft and silvery irons are scarce and the lower grades abundant. The Woodstock coke furnace made a successful start and promises to be one of the large producers. Most of the Southern charcoal furnaces are accumulating iron on their yards, hoping that the long-looked-for revival in car-building will soon materialize and relieve them.

The Aetna charcoal furnace for some time past has been making "basic" pig for the Chattanooga Steel Works. As the capacity of the furnace is greater than that of the steel plant at present, a limited portion of the product is placed on the market for foundry use. This kind of iron is quite a novelty in the United States. It is high in phosphorus and graphitic carbon, with only a trace of sulphur and but little combined carbon, and the No. 1 has less than one-half of one per cent. of silicon. In spite of this the iron is said to be extraordinarily fluid and especially adapted to art castings and work where fine lines are needed.

The marked depression in Wall street and the attacks made on railroad and industrial stocks help to make the outlook more discouraging. The good crops are still looked upon as the factor that will straighten matters out a little later.

The money market continues close and banks are very conservative regarding loans.

We quote for cash f. o. b. Cincinnati:

FOUNDRY IRONS.	
Southern coke No. 1.....	\$15 00@15 25
Southern coke No. 2 and No. 1 soft.....	13 75@14 00
Hanging Rock coke No. 1.....	16 50@17 50
Hanging Rock charcoal No. 1.....	20 00@22 00
Tennessee charcoal No. 1.....	16 50@17 50
Jackson Co. stone coal No. 1.....	16 50@17 00

MILL IRONS.

Standard Southern coke, G. F.....	\$12 75@13 00
Standard Southern coke, mottled.....	12 25@12 50

CAR WHEEL AND MALLEABLE.

Standard Alabama C. W.....	\$19 50@20 50
Tennessee C. W.....	18 00@19 00
Lake Superior C. W.....	19 50@20 50

CHICAGO, July 30, 1891.

The market for pig metal continues in practically the same condition as last reported, orders for most part being of small size and covering early deliveries. There are some large buyers who are still waiting for special prices, and are prepared to quickly pick up any bargains of this kind which may be offered. Two or three sales of round lots of Southern coke iron have been reported, ranging in sizes from 1,000 to 2,000 tons; with this exception orders have been mainly for small amounts.

Prices remain practically unchanged, though on Lake Superior charcoals one or two of the largest companies are now holding their product at \$18.50 Chicago, in con-

STURGIS ROLLER MILLS,

BAUER & BUHRER, Proprietors.

STURGIS, MICH., July 12, 1890.

THE CASE MANUFACTURING CO., Columbus, Ohio.

GENTS—We started mill July 7th. The 12 pair 9x18 rolls you furnished us worked perfectly. They are so easy to adjust, so simple to handle, feed so regularly, grind so nicely and even and work so smoothly on the whole, that we have no hesitancy in stating that we cannot see how they can have a superior, if equal. Aside from their perfect work, they are models of beauty and finish, and a decided ornament to any mill. We enclose clippings from papers. We are, with best wishes,
Very truly yours,
BAUER & BUHRER.

For full particulars regarding the BEST FLOUR OR CORN MILL MACHINERY, address

The Case Manufacturing Company, Columbus, Ohio.

Louisiana Rice Fields.

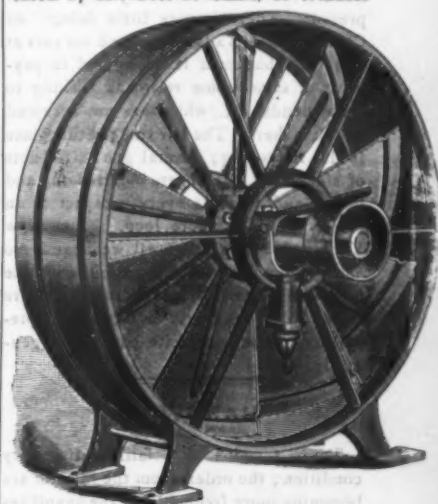
The August number of the American Agriculturist gives the following interesting history of the rice industry of Louisiana:

"Since 1885 rice has been surrendering back to sugar much of its usurped domain on the banks of the Mississippi river and Bayou Lafourche. In those localities, in many instances, enough money has been made off rice planting to enable the planters to return to the more costly and much more productive cane culture. The reduction of the rice acreage in the river and bayou parishes accounts for the falling off from the 1,100,000-barrel crop of 1885 to an annual average of about 800,000 barrels for the four years up to 1890. During the past three or four years rice culture has been moving steadily from the southeastern delta parishes to the southwestern prairie parishes of the State. These latter are Acadia, St. Landry, St. Martin, Lafayette, Vermillion and Calcasieu. Three years ago the prairie region produced practically no rice for market. In 1889 the production suddenly rose to 300,000 barrels, against 477,000 barrels for the delta parishes, which had made 1,100,000 barrels in 1885. In 1890 the crop of the prairie parishes is estimated at 700,000 barrels, or about seven-tenths of the whole crop of the State. It is ardently hoped that the entire culture may be moved over to the prairie region. Piercing the levees of the Mississippi river and Bayou Lafourche with irrigating rice flumes has, during the past seven years, cost Louisiana in damages many times the value of its total annual rice crop. In 1884 the Davis crevasse, in the parish of St. Charles, from a defective rice flume in the levee, inundated seven parishes, equal in area to the entire State of Connecticut, overflowed two manufacturing suburbs of New Orleans, and stopped for five months commerce and travel on two lines of railroad reaching from that city to the Pacific ocean. The damage it inflicted is calculated in costs at \$10,000,000. In 1890 the Nita crevasse, in St. James parish, due to a defective rice flume, flooded several rich sugar parishes, closed up temporarily the southern ends of the Illinois Central and Mississippi Valley Railways, and, sending a vast volume of water into the Gulf of Mexico through Lake Pontchartrain, destroyed the immense oyster-beds of Mississippi sound. Its gross damage in money has been computed at \$6,000,000. On March 17, this year, the Ames crevasse, in Jefferson parish, opposite New Orleans, broke through the levee where it was lately pierced for an iron pipe to irrigate a rice field. This crevasse, now 1,200 feet wide, has already overflowed several parishes and the thriving manufacturing towns of Gretna and Goudsboro. It threatens hourly to inundate the populous suburb, Algiers, and has cut in two the Southern Pacific and Texas Pacific Railways. The extent of its damage is already measured by millions. There is thus a yearning desire to see rice culture relegated to the prairie parishes, where there are no levees to break and no devastating floods to turn loose through flume-pierced embankments holding a mighty wall of rushing waters high above the fields and homes of the people. The new rice region in Southwestern Louisiana has had the benefit of numerous farmer emigrants from the far Northern States and the advantage of capital liberally applied to its drainage

and irrigation works. These strong companies have dredged the lowlands and constructed artificial lakes and reservoirs in the interior to furnish a continuous supply of water for the growing crops. Some of these lakes are several miles in superficial area and five feet deep. They are formed by building high and broad embankments across low depressions in the prairies, thus holding the winter and spring rainfall for use in summer, to be fed to the rice fields through proper ditches and sluices. That section of Louisiana is already the great rice field of the Western Continent. During the past 10 years the Louisiana rice crop has exceeded that of the Carolinas and Georgia combined by about 25 per cent. Before five years have passed the new prairie rice district is likely to surpass in production the present annual crop of all the rice-growing States. There is an immense area of land in these prairie parishes to be profitably devoted to rice culture. The product is planted, grown and harvested at a far less cost than on the leveed lands of the delta parishes, and the horse-harvester can be used at far greater advantage in the prairie parishes, where it performs the work of 12 or 15 highly-paid harvest hands."

Exhaust Fans.

An effective exhaust fan for the proper ventilation of workrooms is now looked upon as almost a necessity. Especially is this the case where there is an escape of smoke or steam. One of the most widely known ventilating fans is that manufactured by Mr. Geo. P. Clark, of Windsor



VENTILATING FAN.

Locks, Conn., and shown in the accompanying illustration. It is the result of many years of experience and experiment. They are adapted to ventilating workshops of every description. By means of an adjustable blade the capacity of the fan can be increased or diminished at will without change of pulley. It has self-oiling and adjustable bearings, great air-handling capacity, and is noiseless. A catalogue will be furnished upon application to the manufacturer.

THE cost of cleaning the streets and alleys of Washington, D. C., for the past fiscal year was \$99,334.92. This comprised the sweeping of 187,529,138 square yards of streets and avenues, and 17,227,308 square yards of improved alleys, also hand work in unimproved streets and alleys and the removal of snow.

BUFFALO, August 1, 1891.

There is no marked improvement to be noticed over last week's situation. More business is in sight, but the prices that are being quoted still continue low. It is not so difficult to find buyers, but only small quantities are being purchased. A better feeling is apparent among consumers, which must be due to improved business outlook.

We quote for cash f. o. b. cars Buffalo:

No. 1 X Fdy., Strong, Coke Iron, Lake Superior ore.....	\$16 50
No. 2 X Fdy., Strong, Coke Iron, Lake Superior Ore.....	15 50
Ohio Strong Softener No. 1.....	16 50
Jackson County Silvery No. 1.....	17 80
Lake Superior Charcoal.....	18 00
Tennessee Charcoal.....	17 50@19 00
Southern Strong No. 1.....	16 50@17 70
Southern Soft No. 1.....	15 75@16 05
Alabama Car Wheel.....	22 00@22 50
Hanging Rock Charcoal.....	21 00@24 00

ROGERS, BROWN & CO.

ONE of the most notable instances of expeditious railroad bridge building on record was accomplished in East Tennessee last month by F. K. Huger, superintendent of that division of the East Tennessee, Virginia & Georgia system. The Leadvale, a covered Howe truss bridge over the French Broad river, 700 feet long and 40 feet above the water, was burned July 23 at noon. On the following day, within 24 hours, a working force of bridge-builders was assembled from over 2,000 miles of railroad, and reconstruction was begun. There was little material to be had within 300 miles, but notwithstanding these obstacles, a new bridge was in place of sufficient strength to permit the passage of trains July 28, just four days after the destruction occurred. This prompt action merits mention. Probably this temporary structure will soon be replaced by an iron bridge, as bids for such a construction have been called for by the company.

The Markets.

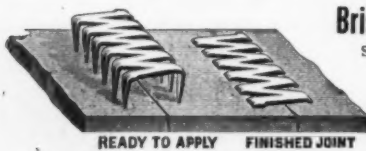
OFFICE MANUFACTURERS' RECORD,
BALTIMORE, August 5, 1901.

Throughout the country the iron trade generally is in a quiet state at this time, there not being much new business to report. Business is dull; only very few orders coming in, merely enough to keep mills going. The position is not changed of any account since last report. There are possibly a few more inquiries, which is encouragement, as this leads us to the belief that trade will continue to improve, and an active demand set in before very long. Stocks are low, orders are quite small, and prices about as moderate as any time during the year. Fine grades of pig iron are held at regular prices, and some small lots are being taken. There is very little call for low grades at this time. No. 1 foundry is still selling at from \$17.50 to \$18.00, and No. 2, \$16.25 to \$16.75. The demand for steel billets, slabs and muck bars remains in the same condition as for the last month or so, namely, no large orders selling; buyers are on the lookout for immediate requirements only. The steel rail trade goes along in the usual way; no important inquiries in hand, and no large orders being placed. In the manufactured iron market we note a slight improvement in demand; mills are quite busy in most cases for early delivery, while in other instances things are not so favorable, there being plenty of competition for any new work that may be heard of. Prices are kept down to a very low level. Several car orders have been placed recently; from other sources, however, the demand for bars is of a hand-to-mouth character, consumers taking only what they need at once. From Pittsburg there is nothing of importance to note; there is a fair demand for steel rails at this time in that section, but not what was experienced last year. At St. Louis things are dull; even concessions will not induce buyers to come into the market for any large lots at present. There is very little doing. At Chicago there is a large demand for cars at this time, but cash is not offered in payment of same, some railroads wishing to trade bonds, etc., which are not accepted by the makers. The bar trade at this place is also improving; several good-sized lots of steel rails have been inquired for and taken, and there is every prospect of an active demand before long. From New York and Philadelphia all we hear is no change in the general situation, with the hope of better things to come. There seems to be a slightly better feeling prevailing in the anthracite coal trade generally.

HARDWARE.

Trade remains in a fairly satisfactory condition; the orders from the interior are becoming more frequent, but the quantities ordered are smaller than usual. Prices are about the same, and will likely continue low for some time. Manufactured goods are sold at little or no profit by the manufacturer. The handled-hoe market is unsettled; prices in some cases are very low, even lower than last year. The demoralization in the chain market continues.

Do you want some second-hand cotton machinery? It is in good running order. See advertisement of Davol Mills, Fall River, Mass., on page 48, and write them for prices, terms, &c.



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Saves Time, Saves Money, Saves Belting.
MOST PERFECT FASTENING for all kinds of Belting. SAMPLES FREE.

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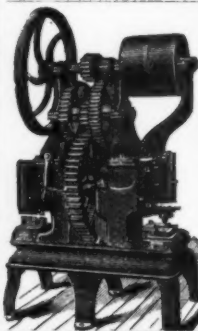


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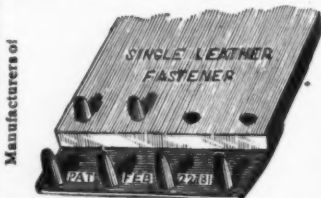
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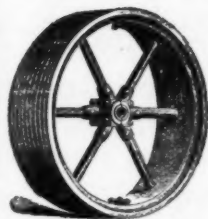
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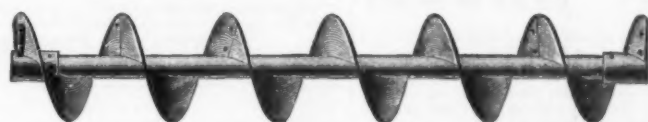


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Will Not Slip on
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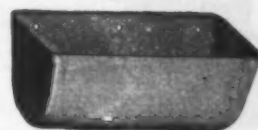
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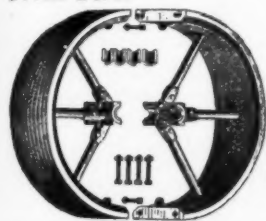
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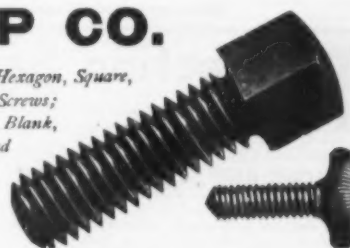
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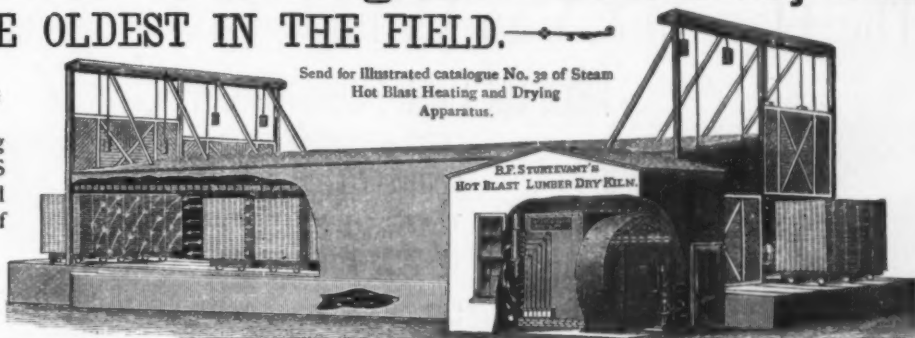
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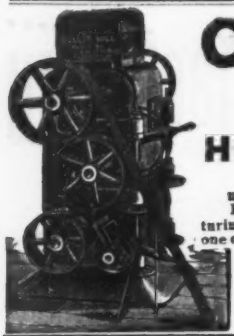
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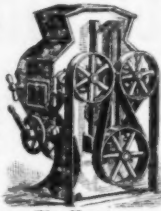


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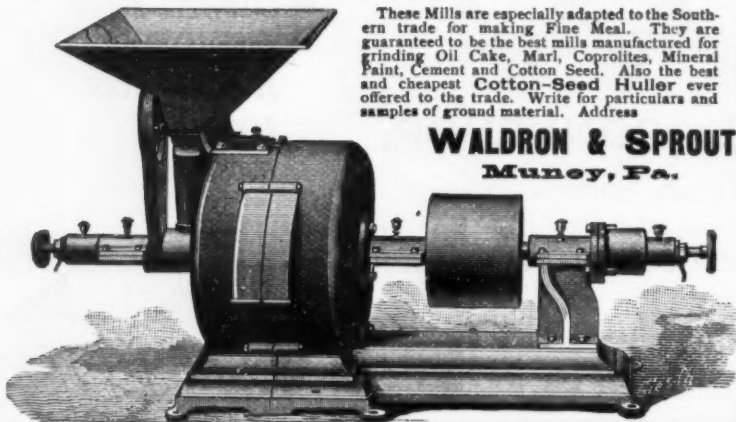
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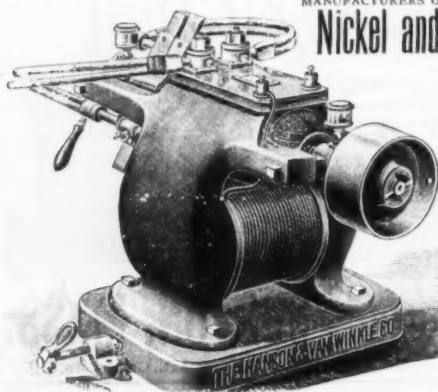


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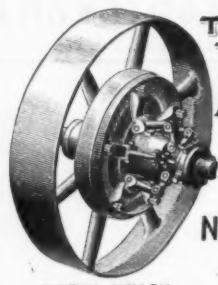


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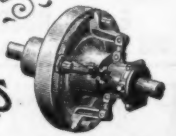
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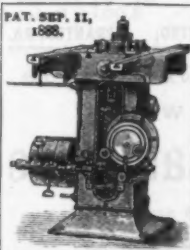
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SEND FOR CATALOGUE SAMPLES & PRICE LIST.

Eastern Lumber Markets.

[Special Cor. MANUFACTURERS' RECORD.]

NEW YORK, August 4, 1891.

Business is moving along in a quiet way at this time in the lumber trade. The unsettled condition of financial affairs has had a somewhat depressing effect upon the lumber, as all others have also been affected, but this is gradually wearing off, and a little improvement is apparent in all grades. Since last week there has been little change in values. There is a slight increase in the movement of white pine to be noted at this time. There is a good deal of stock on hand, and we are therefore unable to note any great improvement in this lumber. A good many bargains are being offered, and this, of course, results in a little business from day to day, and keeps consumers well stocked up. Ordinary box and choice uppers are first asked for.

The yellow pine market is extremely dull for this season of the year, and not nearly up to the market at this season of 1890. Specials are being inquired for, and some few small lots taken, buyers having the advantage in these sales. Carolina pine operators take a cheerful view of the situation at all times. There is no active demand at this time, however, and no chance of obtaining better prices for their product. The call now is mostly for low-grade lumber, which includes quarter-sawn stock. Common can be bought about as cheap as plain sawed, and is taken by factory men, who can use it to good advantage. Oak is moving along, as usual, in a quiet way; good oak is always wanted. Basswood and elm are also having a slow sale. Small lots of walnut are also being taken. The house-finishing trade has not yet started up with any great activity, but it is expected that some heavy buyers will be in the market soon with orders for early delivery. Fine cherry is always wanted, and will bring good prices, but as the supply is heavy at this time it is selling only moderately.

From Tonawanda, reports at this time are quite encouraging. There has been a gradual increase in trade during the past week. Some report having shipped as much lumber this month as during the same period last year. The New England trade is still slow, as also the business in Buffalo. From the South we do not hear of much improvement as yet, although inquiries are more frequent than two or three weeks past. We are anxiously awaiting the fall trade.

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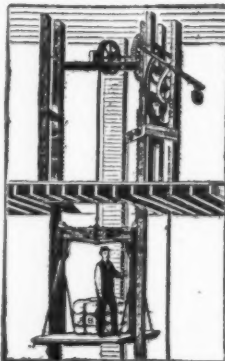
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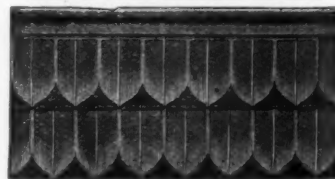
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World's Fair Notes.

The American commissioners of the World's Columbian Exposition who went to Europe a few weeks since to interest the governments and peoples there in the great international exposition to be held at Chicago have been most cordially received, and both England and France have manifested an interest in the affair that gives promise of grand results.

Great Britain has a royal commission, at the head of which is the Prince of Wales, that has evinced a marked interest in the enterprise and an earnest purpose to secure a British exhibit of arts and manufactures second to none that has ever been displayed by that country. In aid of their efforts the exposition management has wisely decided to establish a bureau of information in London, with Col. Frederick Brackett, late chief clerk of the United States Treasury Department, as its head, at which place intending exhibitors can learn all they need to know relative to the methods of shipment and entry of goods intended for exhibition at Chicago; also routes and cost of transportation, methods of caring for goods unaccompanied by caretakers, and all regulations for returning the same to exhibitors.

The most significant expressions of British sentiment relative to the proposed celebration of the discovery of America by Columbus four centuries ago were made at the luncheon given by the American commission, July 28, at the Savoy Hotel, London, where they entertained the British commission prior to the departure of the former for the continent. At that gathering Minister Lincoln spoke in warm terms of the cordial reception the American commission had received from Lord Salisbury, the British Premier, which was significant of the support the exposition would receive from the government. But the most significant speech made during the banquet was that of Viscount Cross, Secretary of State for India. As Viscount Cross is a cabinet officer, and as he is honored with the friendship of the Queen, his utterance upon this occasion is said beyond doubt to have been authorized by the government. The Viscount said that he wished to assure America in the strongest terms that England was heartily and entirely with the United States in this matter, and that she would do everything possible to insure the best representation at the fair, not only of England, but of India and the colonies. Viscount Cross also promised the American committee the heartiest co-operation of the government. The Viscount's speech was enthusiastically applauded by all present.

Of this speech Sir Philip Cunliffe Owen, the British "father of expositions," just before the company dispersed said: "The associated people of America cannot overestimate the importance of the presence and speech of Viscount Cross upon this occasion. It means that the Queen and the government will throw the full weight of their influence in favor of the fair."

Of equal importance was the autograph letter from Hon. Wm. E. Gladstone to Major Benjamin Butterworth which was read. The "grand old man" wrote: "I cannot doubt that the Chicago Exhibition would tend materially to advance the commercial intercourse between nations, and therewith those sentiments of friendships which are its usual results."

The conclusion to be drawn from these expressions is that both the government and the opposition are equally alive to the advantages the Exposition of 1893 will offer to Great Britain, and therefore that the leaders of both political parties will do all in their power to make it a success.

In France the feeling is most cordial, and all signs are that that country will, both officially and through the co-operation of its industrial interests, have a representation at Chicago the most complete in all respects that has ever been sent to a foreign land.

In other European countries the preparations by governments and their citizens are of such a character and are so far advanced that it is absolutely certain that the exhibition at Chicago will cover a greater, finer and more general display of the industries and arts of Europe than any that has preceded it.

At home the good work is moving forward at a commendable and most gratifying rate. This is especially true at the South, the citizens of most of its States having been stimulated to unwonted exertions by the knowledge of what other sections were doing. But in no Southern State can the people do too much for this exposition, for there will assemble there the capitalists of the world to determine, each for himself, where he can make his investments with a reasonable feeling of security and a reasonable hope of profits.

TRADE NOTES.

The Universal Radial Drill Co., of Cincinnati, Ohio, is sending out their monthly calendar for August.

A CIRCULAR of information about Salem, Va., is being distributed by the Salem Improvement, the Salem Development and the South Salem Land Companies. It is carefully edited, nicely printed and beautifully illustrated. The advantages of Salem as a place for residence, business, investment and manufacturing are ably set forth.

MESSRS. BYRAM & Co., of Detroit, Mich., manufacturers of the Colliau patent cupola furnace, are now executing the contract for two of their large size Colliau cupola furnaces for the Grant Locomotive Works, Chicago, Ill. This company recently supplied the United States Government with the third cupola furnace, this last being for the Watertown Arsenal, Watertown, Mass.

B. W. PAYNE & Co., of Elmira, N. Y., have recently shipped to the Maryland Tack Co., Front Royal, Va., one 60 horse-power vertical boiler; two 80 horse-power boilers to the Consolidation Coal Co., Frostburg, Md.; one 40 horse-power engine and boiler complete to the Thomson-Houston Electric Light Co., Decatur, Ga.; one 175 horse-power tandem compound engine to the Brush Electric Light Co., Columbus, Ga., making the third they have had in the last two years.

The Cambridge Roofing Co., which has lately opened up a branch factory in Chattanooga, Tenn., reports the following new business, which does not include sales to its regular customers, and which, in consideration of the present depression in all lines of business, is very gratifying to the managers. Orders received for the Crows patent standing seam steel roofing are as follows: Lowmes Manufacturing Co., Huntsville, Ala., 64 squares; A. Brewer & Son, Bristol, Tenn., 70 squares; for a business block in Dayton, Tenn., 70 squares; they have also put this roofing on the European Hotel of their city, which was lately destroyed by fire, and Alexander Hunt's house on Lookout mountain; the Chattanooga Iron Co., over 100 squares of heavy corrugated iron for their furnace, and are now covering a roof for the Southern Iron Co. with their No. 24 V-crimped iron; 50 squares corrugated crimped edge iron, Chattanooga Foundry & Pipe Works; 100 squares Eureka standing seam iron roofing for a large firm in Corinth, Miss.

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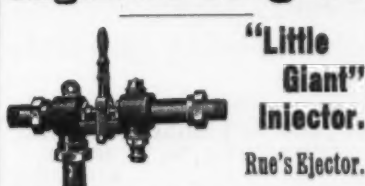
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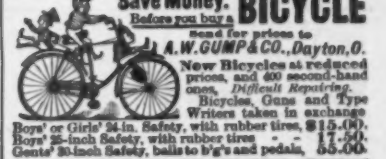
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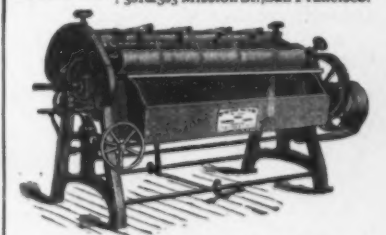


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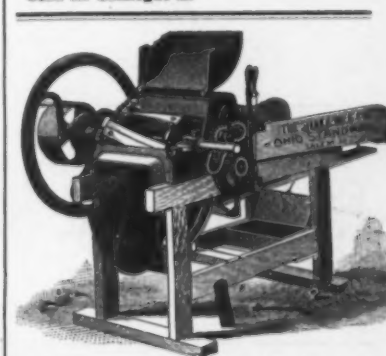
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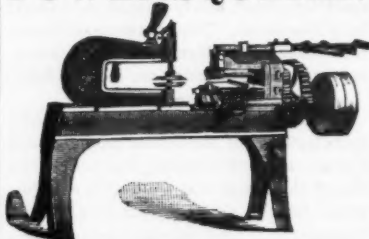
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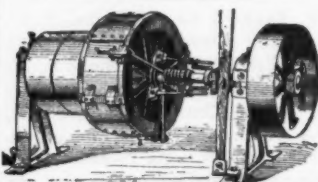
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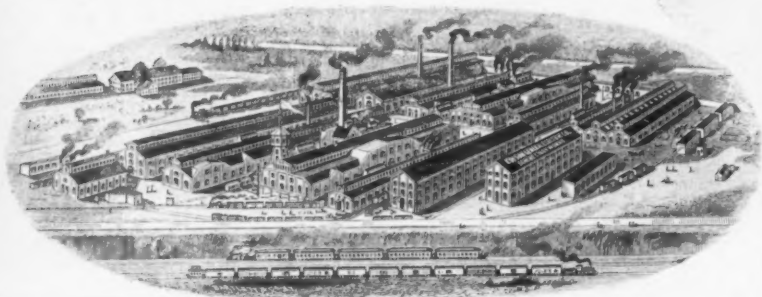
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[FOR "CLASSIFIED INDEX," SEE PAGE 2.]

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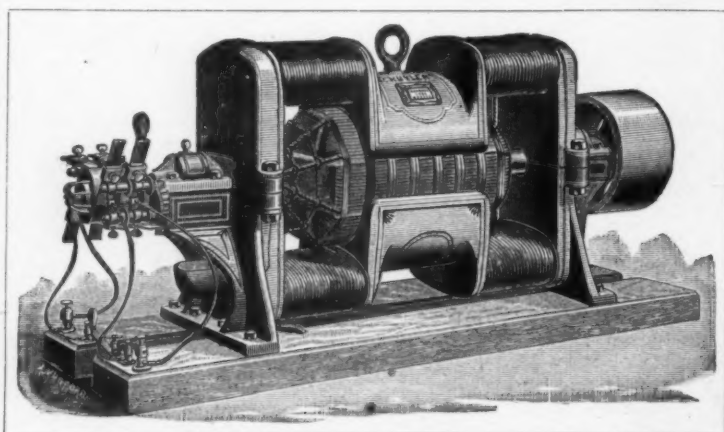
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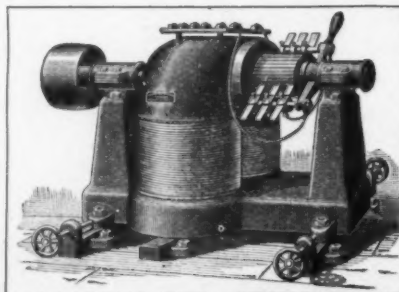
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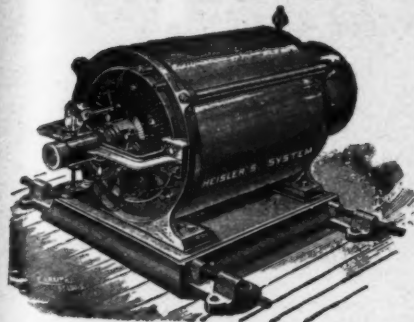
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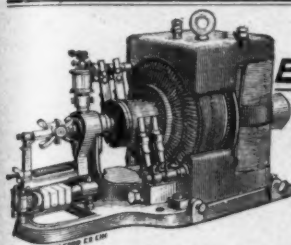
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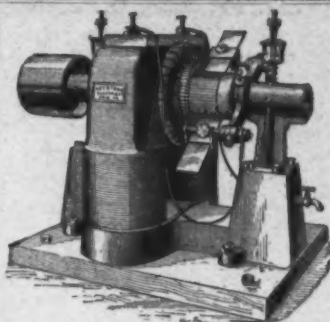


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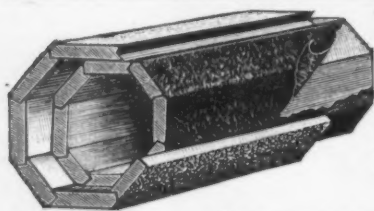
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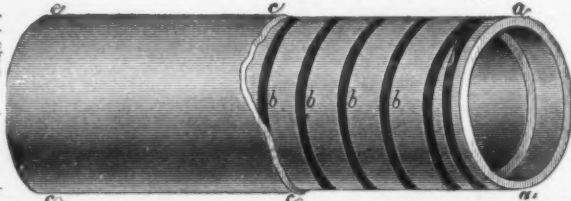
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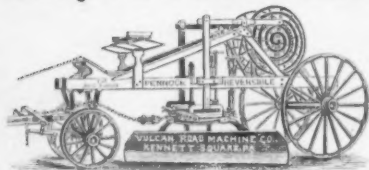
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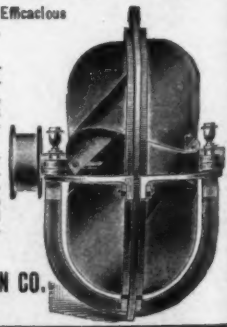
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